

## Product datasheet for **RG217147**

### Caspase 8 (CASP8) (NM\_001080124) Human Tagged ORF Clone

#### Product data:

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Product Type:             | Expression Plasmids                                     |
| Product Name:             | Caspase 8 (CASP8) (NM_001080124) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                                |
| Symbol:                   | CASP8                                                   |
| Synonyms:                 | ALPS2B; CAP4; Casp-8; FLICE; MACH; MCH5                 |
| Mammalian Cell Selection: | Neomycin                                                |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                 |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                  |



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**ORF Nucleotide Sequence:**

>RG217147 representing NM\_001080124  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACTTCAGCAGAAATCTTTATGATATTGGGGAACAACTGGACAGTGAAGATCTGGCCTCCCTCAAGT  
 TCCTGAGCCTGGACTACATTCCGCAAAGGAAGCAAGAACCATCAAGGATGCCTTGATGTTATTCCAGAG  
 ACTCCAGGAAAAGAGAATGTTGGAGGAAAAGCAATCTGTCCTTCCTGAAGGAGCTGCTCTCCGAATTAAT  
 AGACTGGATTTGCTGATTACCTACCTAAACACTAGAAAGGAGGAGATGGAAAGGGAACCTCAGACACCAG  
 GCAGGGCTCAAATTTCTGCCTACAGGGTCATGCTCTATCAGATTTCAGAAGAAGTGAAGCAGATCAGAATT  
 GAGGTCTTTAAGTTTCTTTTGAAGAGGAAATCTCCAAATGCAAACCTGGATGATGACATGAACCTGCTG  
 GATATTTTCATAGAGATGGAGAAGAGGGTCATCCTGGGAGAAGGAAAGTTGGACATCCTGAAAAGAGTCT  
 GTGCCAAATCAACAAGAGCCTGCTGAAGATAATCAACGACTATGAAGAATTCAGCAAAGGGGAGGAGTT  
 GTGTGGGGTAATGACAATCTCGGACTCTCCAAGAGAACAGGATAGTGAATCACAGACTTTGGACAAAAGTT  
 TACCAAATGAAAAGCAAACCTCGGGGACTGTCTGATCATCAACAATCACAATTTTGCAAAAGCAGCGG  
 AGAAAGTGCCCAAACCTCACAGCATTAGGGACAGGAATGGAACACACTTGGATGCAGGGGCTTTGACCAC  
 GACCTTTGAAGAGCTTCATTTTGAGATCAAGCCCCACGATGACTGCACAGTAGAGCAAATCTATGAGATT  
 TTGAAAATCTACCAACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCCATTGGAG  
 ACAAGGGCATCATCTATGGCACTGATGGACAGGAGGCCCCATCTATGAGCTGACATCTCAGTTCCTGG  
 TTTGAAGTGCCCTTCCCTTGCTGGAAAACCAAAGTGTTCATTCAGGCTTGTGAGGGGATAACTAC  
 CAGAAAGGTATACCTGTTGAGACTGATTCAGAGGAGCAACCCTATTTAGAAATGGATTTATCATCACCTC  
 AAACGAGATATATCCCGGATGAGGCTGACTTTCTGCTGGGGATGGCCACTGTGAATAACTGTGTTTCCTA  
 CCGAAACCTGCAGAGGGAACCTGGTACATCCAGTCACTTTGCCAGAGCCTGAGAGAGCGATGTCCTCGA  
 GCGGATGATATTCTACCATCCTGACTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
 TGGGGAACAGATGCCTCAGCCTACTTTACACTAAGAAAAAACTTGTCTTCCCTTCTGAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG217147 representing NM\_001080124  
 Red=Cloning site Green=Tags(s)

MDFSRNLYDIGEQLDSEDLASLKFSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRIN  
 RLDLLITYLNTRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSELRSFKFLLQEEISKCKLDDMNLL  
 DIFIEMEKRVILGEGKLDILKRVCAQINKSLKIIINDYEEFSKGEELCGVMTISDSPREQDSESQTLDKV  
 YQMKSKPRGYCLIIINNHF AKAREKVPKLHSIRDRNGTHLDAGALTTTFFELHFEIKPHDDCTVEQIYEI  
 LKIIYQLMDHSNMDCFICILSHGDKGIIYGTGQEAQIYELTSQFTGLKCPSLAGKPKVFFIQACQGDNY  
 QKGIPVETDSEEQPYLEMDLSSPQTRYIPDEADFLGMATVNNCVSYRNP AEGTWYIQSLCQSLRERCPR  
 GDDILTILTEVNYEVS NKDDKKNMGKQMPQPTFLRKKLVFPSD

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI



|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Components:</b>            | The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <a href="#">NM_001080124.2</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq Size:</b>           | 2750 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RefSeq ORF:</b>            | 1395 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Locus ID:</b>              | 841                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>UniProt ID:</b>            | <a href="#">Q14790</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 2q33.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Families:</b>      | Druggable Genome, Protease                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Pathways:</b>      | Alzheimer's disease, Apoptosis, Huntington's disease, NOD-like receptor signaling pathway, p53 signaling pathway, Pathways in cancer, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway, Viral myocarditis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Gene Summary:</b>          | <p>This gene encodes a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes composed of a prodomain, a large protease subunit, and a small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This protein is involved in the programmed cell death induced by Fas and various apoptotic stimuli. The N-terminal FADD-like death effector domain of this protein suggests that it may interact with Fas-interacting protein FADD. This protein was detected in the insoluble fraction of the affected brain region from Huntington disease patients but not in those from normal controls, which implicated the role in neurodegenerative diseases. Many alternatively spliced transcript variants encoding different isoforms have been described, although not all variants have had their full-length sequences determined. [provided by RefSeq, Jul 2008]</p> |