

## Product datasheet for **RN210052**

### **Oas2 (NM\_001009715) Rat Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Oas2 (NM_001009715) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Oas2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >RN210052 representing NM\_001009715  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGAAACTGGATGCCTGGCTGGTCCAGTGGGTCTTTGGGGTGCCCCCATGCCAGTGCAGAAGC  
 TAGAAAAGTCTGTCCAGGTAAACCTTGAACCAGATGAAAAATGTCTGAGTCAGACCGAGGTGCCTCTGT  
 ACCATCCCAGAAGCTAGAAGAATATATCCAGGCAAACCTCAAACCCGATGAAGAATCTCTGAAGCAGATA  
 GACCAGGCTGTGGATGCCATCTCTGACCTGCTGTGCAGTGAGGTGATGATCGATGTGCTGAAAGTGGTTA  
 AGGGTGGCTCCTATGGTCGAAAAACAGTCTAAGAGACTGCTCCGATGGTACACTTGTCTCTTACCAGG  
 TCTCTTCAAACAGTTCGAAGACCAGAAGAAATACCAAGATAAGCTCCTTGACTTGATTGAACAACGGCTG  
 AAAAGCCATGAGAAATACAAGAAGTCAGTAAACGTAACCTAGCCTCCTGAAGTACAAGTGTCTATAC  
 CAGGGCAGAGTAACTCTTGCAGTTGCTTCCAACCTTCAATCCTCTGTGCATCAGTGAGAATCCCAGCGC  
 CCAGGTCTATCAGAATCTCAAAGATCCATGGATCAAGTAAAAGCATCACCTGGGGAATTCTCAGACTGC  
 TTCACCACACTGCAGCAGAGTTTTTCGAGAAATATCCCGGAGACTGAAGGATTTGATTCTATTGGTCA  
 AGCACTGGTATAAACAGTTGCAGGATAAGTGGATAATACCCTCACCTCCGCCATTGCTATATGCACTGGA  
 GCTGCTTACTGTGTATGCCTGGGAACAGGGCTGCCAGACTAAAGACTTTGACATCACGCAAGGTATCAGG  
 ACTGTGCTGCAACTCATCAGTCAGCCGACAAACCTGTGTGTCTACTGGTTAGACAATTACAACCTTGGAG  
 ATGAGACAGTCCGGAACAACCTTCTGCACCAGCTCAACTCCCCAAGACCGGTCACTTGGATCCAACCGA  
 CCCAACCAACAATGTGGGCAAAGATGACAGGTTCTGGCAGCTACTGGCAGAAGAGGCTCAGGAGTGGCTG  
 AACTCTCTCAGACTGAATAAGCCACACAAACCATGTTGGGATGTTCTGCCATGCCATTTTTCATCACCC  
 CAAGACTGCCTGGACAAGTTCATCAAAGACTTCCTCCAACCTGACAAGGTCTTCTCAAACCAAAATCAA  
 AAGAGCTGTTGACATTATCTGTTCACTTCTAAAAGAGACCTGCTCCAGAATTCTGACATCAAAGTCTCTG  
 AAGATCATCAAGGAGGATCCACTGCCAAAGGCACAGCTCTGCAGCAGAGATCAGATGCTGACATCATAG  
 TGTTCCTCAGCTCACTGGATAGTTATGACTCCCTAGAACTGAACGCTCCAGTACGTCCAGGAGATCCG  
 AAAGCAGTTAGAAGCCTGCCAGAAGGCCTTAAATTTAGGGGTGAAGTTTGATATTTCCAAATGGATGGCC  
 CCCAGGGTGTGAGTTTTACCCTGGAATCCAAGAGTCTCAAGCAAAGTGTGGAGTTCGATGCTCTCCCG  
 CCTATGATGCACTAGGTCAGCTGCGGTCTGACTACACCTCCAGGCTCAAAGCCTACAAGAAGCTCATTGA  
 GCTGTATGCCTCAGGACAGCCTCAAAGGAGGGGAGTTTTTCAGTCTGTTTTACAGAGCTACAGAGAGAC  
 TTCATTGAAACCAGGCCACAAACTCAAGGGTCTGATCCGCCTGATCAAGCACTGGTACAAACAGTGTG  
 AAAGGAAGATGAAGCCAAAAGCATCTTTGCCTCCAAGTACGCACTGGAGCTGCTCACCGTGTATGGGTG  
 GGAGCATGGCAGTGGCACAGATGGCTTCGACACTGCTGAAGGCTTCCGGACCGTCTGGACTTGGTCATA  
 AGATACCGGCAGCTCTGCGTCTTCTGGACAGTCAATTACAACCTTGGAGGAGTACATGAGGAAGTTCC  
 TACTGACCAGATCCAGAAAAAGAGGCTGTGATCCTGGATCCAGCAGATCCCACAGGTGATGTGGGAGG  
 AGGTGACCGTGGTGTGGCATCTTCTAGCCAAAGAAGCAAAGGAGTGGCTGTCTCCTCTGTTTCCAA  
 GTGGAGCCAAAAGCCCCGTGCAGCCGTGGAAGTACCAGTAGTACAGACTCCAGGAAGCTGTGGAGCTC  
 AGATCTACCCTGTGGTGGGTGGGTGTACT**AA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001009715

**Insert Size:** 2202 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

<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>	<u>NM_001009715.1, NP_001009715.1</u>
<b>RefSeq Size:</b>	2274 bp
<b>RefSeq ORF:</b>	2202 bp
<b>Locus ID:</b>	363938
<b>UniProt ID:</b>	<u>Q5MYU0</u>
<b>Cytogenetics:</b>	12q16
<b>Gene Summary:</b>	Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response. Activated by detection of double stranded RNA (dsRNA): polymerizes higher oligomers of 2'-5'-oligoadenylates (2-5A) from ATP which then bind to the inactive monomeric form of ribonuclease L (RNASEL) leading to its dimerization and subsequent activation. Activation of RNASEL leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication. Can mediate the antiviral effect via the classical RNASEL-dependent pathway or an alternative antiviral pathway independent of RNASEL. In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation (By similarity). May act as a negative regulator of lactation, stopping lactation in virally infected mammary gland lobules, thereby preventing transmission of viruses to neonates (By similarity). Non-infected lobules would not be affected, allowing efficient pup feeding during infection (By similarity).[UniProtKB/Swiss-Prot Function]