

## Product datasheet for **MC221262**

### **Oas2 (NM\_145227) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Oas2 (NM_145227) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Oas2
Synonyms:	Oasl11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:**

>MC221262 representing NM\_145227  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGAAACTGGCTGACTGGAACTGGTCATCTGACAGGTCATCTGGCTATTCATCTGGCTGGTCACCTG  
 GTGGGTCTTCAGGGGTGCCCTCCGGGCCAGTGCACAAGTTAGAAAAGTCTATCCAGGCAAACCTCACACC  
 CAACGAAAACCTGTCTGAAGCAGATTGCGGTGTCCTCGGTGCCATCGCAGAAGCTAGAAGGTATATCCAG  
 GAAAACCTCAAACCTAACAGAGAATCTCTGAAGCAGATAGACCAGGCCGTGGATGCCATCTGGGACCTGC  
 TGCAGCAGTCAGATCCCTGTGAAGGAAGTGGCTAAGGGTGGCTCCTATGGCCGGGAAACAGCCCTAAGAGG  
 CTGCTCCGATGGTACCCTTGTCTCTTCATGGACTGCTTCCAACAGTTCAGGATCAGATAAAAATACCAA  
 GATGCATACCTTGACGTCATTGAACTGTGGCTGAAAATCCATGAGAAGAAGTCAGTAAAGCATGAACATG  
 CCCTTGTAGTACAAGTGTCTGTACCAGGCAGAGAATACTCCTGCAATTACTTCCAGTCTTCAATCTCT  
 ACGCTCCAATGAGAATCCAGCTCCTGTGTCTATGTGGATCTCAAAAAATCCATGGATCAAGTAAGAGCC  
 TACCAGGGGAGTTCTCAGACTGCTTACCACACTGCAGCAGCGGTTTTTCAAGAAATATCCCCAAAGAC  
 TGAAGGATTTGATCCTATTGGTCAAGCACTGGTATGAACAGTGCCAGGAGAAGTGAAAAACACCCACC  
 TCAGCCATTGCTGTACGCACTGGAAGTCTCACTGTGTATGCCTGGGAACAGGGCTGCCAAGCTGAAGAC  
 TTCGACATGGCACAAGGCGTCAGGACCGTGTGCGACTTATCCAGCGGCCGACAGAGCTGTGTGTCTACT  
 GGACAGTCAATTACAACCTTTGAGGATGAGACAGTCCGGAACATCCTTCTGCACCAGCTCAGGTCCCAAAG  
 ACCAGTCATCTTGGATCCAACCTGACCCAACCAATAATGTGGGCAAAGATGATGGGTTCTGGGAGCTACTG  
 ACAGAGGAAGCTATGGCCTGGCTGTACTCTCCAGCCTGAATACTGAGTCACTGCACCATATTGGGATG  
 TTCTGCCATGCCACTTTTCGCTCACTCCAAGCCTTACTGAACAAGTTCATCAAGGACTTCTCCAGCC  
 CAACAAGCTCTTCTAAAGCAGATCAAGGAAGCTGTTGACATTATATGTTCTTCTTAAAAATGTCTGC  
 TTCTTGAATTCTGACACCAAAGTCTGAAGACCGTCAAGGGAGGATCCACTGCCAAAGGCACAGCTCTGA  
 AGCGGGGATCAGATGCTGACATTGTTGTGTTCTCTCCTCGCTGGAGAGTTACGACTCTCTAAAAACCAA  
 CCGCTCCAGTTCGTCCAGGAGATCCAGAAGCAGTTAGAAGAATTCGTGCAGGCGCAGGAGTGGGAGGTG  
 ACGTTTGAGATTTCAAAATGGAAGGCTCCAGAGTGTGAGTTTTACCTTGAAATCCAAGACTCTCAATG  
 AAAGTGTGAGTTCGATGTCCTTCCGCCTATGATGCACTAGGTCAACTGCGGTCTGACTTACCCTCAG  
 GCCCGAAGCCTACAAGGATCTCATTGAGCTGTGTGCATCACAGGACATCAAAGAAGGAGAGTTTTCTATC  
 TGTTTTACTGAGCTGCAGAGAACTTCATTCAAACCCGGCCACCAAACCTGAAGAGTCTACTCCGCCTGA  
 TCAAGCACTGGTACAAACAGTATGAAAGGAAGATGAAGCCAAAAGCATCTTTACCCCAAAGTACGCCCT  
 GGAGCTGCTCACCGTGTATGCCTGGGAGCAGGGCAGTGGCACAGATGACTTTGACATTGCTGAAGGCTTC  
 CGGACCGTCTGGACCTGGTTATAAAAATACCGGCAGCTCTGCATCTTCTGGACAGTCAATTACAACCTTG  
 AAGAGGAATACATGCGGAAGTTCCTACTGACCCAGATCCAGAAAAAGAGGCCGTGTAATCCTGGATCCAGC  
 AGATCCCACAGGCGATGTGGGAGGAGGTGACCGCTGGTGTGGCATCTTCTAGCTGAAGAAGCGAAGGAG  
 TGGCTGTCCTCCCTTGTTCAAAGTGGAGCAAAAAGGCTGGTACAGCCTTGGAAAGTGCCAGTAATGC  
 AGACCCCGGAAGCTGTGGAGGTCAGATCTACCCCACTGTGGGTGGAGTTACTAAGTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-Mlul

**ACCN:**

NM\_145227

**Insert Size:**

2229 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><a href="#">NM_145227.3</a></u> , <u><a href="#">NP_660262.2</a></u>
<b>RefSeq Size:</b>	3873 bp
<b>RefSeq ORF:</b>	2229 bp
<b>Locus ID:</b>	246728
<b>UniProt ID:</b>	<u><a href="#">E9Q9A9</a></u>
<b>Cytogenetics:</b>	5 60.64 cM
<b>Gene Summary:</b>	<p>Interferon-induced, dsRNA-activated antiviral enzyme which plays a critical role in cellular innate antiviral response (PubMed:12396720, PubMed:29117179). 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 (PubMed:29117179). Activation of RNASEL leads to degradation of cellular as well as viral RNA, resulting in the inhibition of protein synthesis, thus terminating viral replication (PubMed:21142819). Can mediate the antiviral effect via the classical RNASEL-dependent pathway or an alternative antiviral pathway independent of RNASEL (PubMed:21142819). In addition, it may also play a role in other cellular processes such as apoptosis, cell growth, differentiation and gene regulation (PubMed:21142819). May act as a negative regulator of lactation, stopping lactation in virally infected mammary gland lobules, thereby preventing transmission of viruses to neonates (PubMed:29117179). Non-infected lobules would not be affected, allowing efficient pup feeding during infection (PubMed:29117179).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) lacks an alternate coding exon in the 3' end compared to variant 1, that causes a frameshift. The resulting isoform (2) has a shorter and distinct C-terminus compared to isoform 1.</p>