

Recombinant Human 2'-5'-Oligoadenylate Synthetase 1, 40/46kDa, His-tagged

Cat. No. OAS1-1399H Lot. No. (See product label)

SPECIFICATION

Product Overview

OAS1 Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 384 amino acids (1-364 a.a.) and having a molecular mass of 43.9kDa. The OAS1 is purified by proprietary chromatographic techniques.

Species

Human

Source

Human

ProteinLength

1-364 a.a.

Description

OAS1 enzyme is a member of the 2 μ ,5 μ -oligoadenylate synthetase family. OAS1 is induced by interferons and uses adenosine triphosphate in 2 μ -specific nucleotidyl transfer reactions to synthesize 2 μ ,5 μ -oligoadenylates(2-5As). These molecules in turn activate latent RNase L resulting in viral RNA degradation and the inhibition of viral replication. OAS1 may have a role in mediating resistance to virus infection, control of cell growth, differentiation, and apoptosis. OAS1 binds double-stranded RNA and polymerizes ATP into PPP (A2"P5"A)N oligomers, which activate the latent RNase L that, once activated, cleaves single-stranded RNAs. OAS1 gene mutations are been linked to host susceptibility to viral infection. OSA1 gene polymorphisms are linked to the outcome of hepatitis C virus infection. Furthermore, OAS1 gene polymorphisms are linked to the susceptibility to severe acute respiratory syndrome.

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Form	The OAS1 solution contains 20mM Tris-HCl buffer (pH 8.0), 10% glycerol and 1mM DTT.
Purity	Greater than 95.0% as determined by SDS-PAGE.
Physical Appearance	Sterile Filtered colorless solution.
Amino acid sequence	MGSSHHHHHH SSGLVPRGSH MMDLRNTPAK SLDKFIEDYL LPDTCFRMQI NHAIDIICGF LKERCFRGSS YPVCVSKVVK GGSSGKGTTL RGRSDADLVV FLSPLTTFQD QLNRRGEFIQ EIRRQLEACQ RERAFSVKFE VQAPRWGNPR ALSFVLSSLQ LGEGVEFDVL PAFDALGQLT GSYKPNPQIY VKLIEECTDL QKEGEFSTCF TELQRDFLKQ RPTKLKSLIR LVKHWYQNCK KKLGLKPPQY ALELLTVYAW ERGSMKTHFN TAQGFRTVLE LVINYQQLCI YWTKYYDFKN PIIEKYLRRQ LTKPRPVILD PADPTGNLGG GDPKGWRQLA QEAEAWLNYP CFKNWDGSPV SSWILLVRPP ASSLPFIPAP LHEA.
Storage	OAS1 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	OAS1 2"-5"-oligoadenylate synthetase 1, 40/46kDa [Homo sapiens]
Official Symbol	OAS1
Synonyms	2"-5"-oligoadenylate synthetase 1; (2-5")oligo(A) synthetase 1; 2-5A synthetase 1; p46/p42 OAS; E18/E16; OAS1; OIAS; IFI-4; OIASI; 2-5A synthase 1; (2-5")oligo(A) synthase 1; 2",5"-oligo A synthetase 1; 2"-5"-oligoisoadenylate synthetase 1; 2",5"-oligoadenylate synthetase 1, 40/46kDa; 2"-5" oligoadenylate synthetase 1 p48 isoform; 2"-5" oligoadenylate synthetase 1 p52 isoform

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Gene ID	4938
mRNA Refseq	NM_001032409
Protein Refseq	NP_001027581
MIM	164350
UniProt ID	P00973
Chromosome Location	12q24.2
Pathway	Cytokine Signaling in Immune system; Hepatitis C; Influenza A; Interferon Signaling; Interferon alpha/beta signaling; Interferon gamma signaling; Measles; Type II interferon signaling (IFNG)
Function	ATP binding; RNA binding; nucleotide binding; nucleotidyltransferase activity; transferase activity

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