Recombinant Human EIF2C2 Protein (517-818 aa), His-tagged

Cat. No. EIF2C2-1155H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human EIF2C2 Protein (517-818 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Epigenetics and Nuclear Signaling. Protein Description: Partial.
Species	Human
Source	E.coli
ProteinLength	517-818 aa
Description	Required for RNA-mediated gene silencing (RNAi) by the RNA-induced silencing complex (RISC). The 'minimal RISC' appears to include AGO2 bound to a short guide RNA such as a microRNA (miRNA) or short interfering RNA (siRNA). These guide RNAs direct RISC to complentary mRNAs that are targets for RISC-mediated gene silencing. The precise mechanism of gene silencing depends on the degree of complentarity between the miRNA or siRNA and its target. Binding of RISC to a perfectly complentary mRNA generally results in silencing due to endonucleolytic cleavage of the mRNA specifically by AGO2. Binding of RISC to a partially complentary mRNA results in silencing through inhibition of translation, and this is independent of endonuclease activity. May inhibit translation initiation by binding to the 7-methylguanosine cap, thereby preventing the recruitment of the translation initiation factor eIF4-E. May also inhibit translation initiation via interaction with EIF6, which itself binds to the 60S ribosomal subunit and prevents its association with the 40S ribosomal subunit. The inhibition of translational initiation leads to the

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	accumulation of the affected mRNA in Cytoplasmic domain processing bodies (P-bodies), where mRNA degradation may subsequently occur. In some cases RISC-mediated translational repression is also observed for miRNAs that perfectly match the 3' untranslated region (3'-UTR). Can also up-regulate the translation of specific mRNAs under certain growth conditions. Binds to the AU elent of the 3'-UTR of the TNF (TNF-alpha) mRNA and up-regulates translation under conditions of serum starvation. Also required for transcriptional gene silencing (TGS), in which short RNAs known as antigene RNAs or agRNAs direct the transcriptional repression of complentary promoter regions.
Form	Tris-based buffer,50% glycerol
Molecular Mass	38.1 kDa
AA Sequence	LVVVILPGKTPVYAEVKRVGDTVLGMATQCVQMKNVQRTTPQTLSNLCLKINVKLGG VNNILLPQGRPPVFQQPVIFLGADVTHPPAGDGKKPSIAAVVGSMDAHPNRYCATVR VQQHRQEIIQDLAAMVRELLIQFYKSTRFKPTRIIFYRDGVSEGQFQQVLHHELLAIRE ACIKLEKDYQPGITFIVVQKRHHTRLFCTDKNERVGKSGNIPAGTTVDTKITHPTEFDF YLCSHAGIQGTSRPSHYHVLWDDNRFSSDELQILTYQLCHTYVRCTRSVSIPAPAYY AHLVAFRARYHLV
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

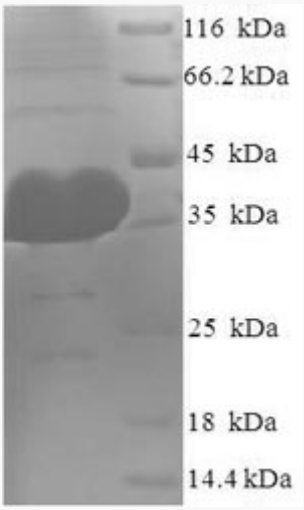
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Concentration	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.

GENE INFORMATION

Gene Name	EIF2C2 eukaryotic translation initiation factor 2C, 2 [Homo sapiens]
Official Symbol	EIF2C2
Synonyms	EIF2C2; AGO2; argonaute 2; Q10; PPD; hAgo2; eIF2C 2; eIF-2C 2; argonaute2; MGC3183;
Gene ID	27161
mRNA Refseq	NM_001164623
Protein Refseq	NP_001158095
MIM	606229
UniProt ID	Q9UKV8

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(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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