

## Product datasheet for TP312877L

### EIF4G1 (NM\_004953) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Purified recombinant protein of Homo sapiens eukaryotic translation initiation factor 4 gamma, 1 (EIF4G1), transcript variant 5, 1 mg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC212877 representing NM\_004953  
Red=Cloning site Green=Tags(s)

MSGARTASTPTPPQTGGGLEPQANGETPQVAVIVRPDDRSQGAIIDRPGLPGPEHSPSESQPSSPSPTP  
 SPSVLEPGSEPNLAVLSIPGDTMTTIQMSVEESTPISRETGEPYRLSPEPTPLAEPILVEVTLKVP  
 ESEFSSSLQAPTPLASHTVEIHEPNGMVPSEDLPEVESSPELAPPACSPESPVIAPTAQPEELLNG  
 APSPPAVDLSPVSEPEEQAKEVTASVAPPTIPSATPATAPSATSPAQEEEMEEEEEEEEGEAGEAGEAES  
 EKGGEELLPESTPIPANLSQNLEAAAATQVAVSVPKRRRKIKELNKKEAVGDLLDAFKEANPAVPEVEN  
 QPPAGSNPGPESESGVPPRPEEADETWDSKEDIHNAENIQPGEQKYEYKSDQWKPLNLEEKRYDREF  
 LLGFQFIFASMQKPEGLPHISDVLDKANKTLRPLDPTLQGINCGPDTFSPANLGRITLSTRGPPRG  
 GPGGELPRGPAGLGPRRSQGPRKEPRKIATVLMTEDIKLNKAEKAWKPSSKRTAADKDRGEEDADGSK  
 TQDLFRRVRSILNKLTQMFMQQLMKQVTLAIDTEERLKGVIDLIFEKAISEPNFSVAYANMCRCLMALK  
 VPTTEKPTVTNFRKLLLNRCQKEFEKDKDDDEVFEKKQKEMDEAATAEERGLKEELEEARDIARRRSL  
 GNIKFIGELFKLMLTEAIMHDCVWLLKNHDEESLECLRLLTTIGKDLDFEKAKPRMDQYFNQMEKII  
 KEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPKTIDQIHKEAEMEEHREHIKVQQLMAKGS DKRRGGPP  
 GPPISRGLPLVDDGGWNTVPISKGSRPIDTSRLTKITKPGSIDSNNQLFAPGGRLSWGKGS SGGSGAKPS  
 DAASEAARPATSTLNRFSA LQQAVPTTESTDNRRVVQRSSLSRERGEKAGDRGDRLE R SERGGDRGDRDLR  
 ARTPATKRSFSKEVEERSRERPSQPEGLRKAASLTEDRDRGRDAVKREAA LPPV SPLKAALSEEELEKKS  
 KAIIEEYLHLNDMKEAVQCQVELASPSLLFIFVRHGVESTLERSAIAREHMGQLLHQLLCAGHLSTAQYY  
 QGLYEILELAEDMEIDIPHWLYLAELVTPILQEGGVPMGELFREITKPLRPLGKAASLLLEILGLLCKS  
 MGPKKVGT LWREAGLSWKEFLPEGQDIGAFVAEQKVEYTLGEESEAPGQRALPSEELNRQLEKLLKEGSS  
 NQRVFDWIEANLSEQQIVSNTLVRALMTAVCYS AII FETPLRVDVAVLKARAKLLQKYLCD EQKELQALY  
 ALQALVVTLEQPPNLLRMFFDALYDEDVVKEDAFYSWESSKDPAEQGKGVALKSVTAFFKWLREAE EES  
 DHN

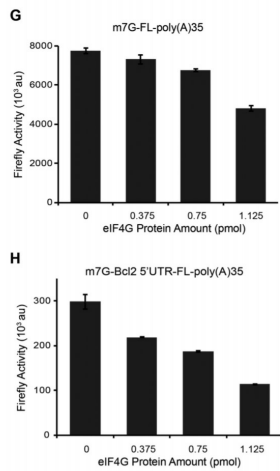
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Tag:** C-Myc/DDK

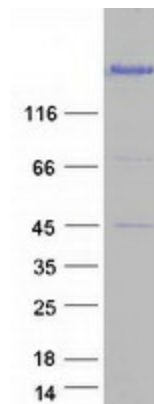


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<b>Predicted MW:</b>	154.6 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
<b>Bioactivity:</b>	In vitro translation assay (PMID: <a href="#">25779044</a> )
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_004944</a>
<b>Locus ID:</b>	1981
<b>UniProt ID:</b>	<a href="#">Q04637</a>
<b>RefSeq Size:</b>	5045
<b>Cytogenetics:</b>	3q27.1
<b>RefSeq ORF:</b>	4209
<b>Synonyms:</b>	EIF-4G1; EIF4F; EIF4G; EIF4GI; P220; PARK18
<b>Summary:</b>	The protein encoded by this gene is a component of the multi-subunit protein complex EIF4F. This complex facilitates the recruitment of mRNA to the ribosome, which is a rate-limiting step during the initiation phase of protein synthesis. The recognition of the mRNA cap and the ATP-dependent unwinding of 5'-terminal secondary structure is catalyzed by factors in this complex. The subunit encoded by this gene is a large scaffolding protein that contains binding sites for other members of the EIF4F complex. A domain at its N-terminus can also interact with the poly(A)-binding protein, which may mediate the circularization of mRNA during translation. Alternative splicing results in multiple transcript variants, some of which are derived from alternative promoter usage. [provided by RefSeq, Aug 2010]
<b>Protein Pathways:</b>	Viral myocarditis

**Product images:**


Recombinant eIF4G1 fails to stimulate cap-dependent translation. Translation of m7GpppG-FL-poly (A)<sub>35</sub> and m7GpppG-Bcl2 5'UTR-FL-poly (A)<sub>35</sub> was determined in nuclease-untreated rabbit reticulocyte lysates supplemented with the indicated amounts (pmol) of the full-length eIF4G1 (OriGene [TP312877]). Figure cited from *Nucleic Acids Res*, PMID: 25779044



Coomassie blue staining of purified EIF4G1 protein (Cat# [TP312877]). The protein was produced from HEK293T cells transfected with EIF4G1 cDNA clone (Cat# [RC212877]) using MegaTran 2.0 (Cat# [TT210002]).