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## DLG2 Protein (AA 1-852) (His tag)



**Image** 



#### Overview

Quantity:	1 mg
Target:	DLG2
Protein Characteristics:	AA 1-852
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DLG2 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

### **Product Details**

Sequence:

MFFACYCALR TNVKKYRYQD EDGPHDHSLP RLTHEVRGPE LVHVSEKNLS QIENVHGYVL
QSHISPLKAS PAPIIVNTDT LDTIPYVNGT EIEYEFEEIT LERGNSGLGF SIAGGTDNPH IGDDPGIFIT
KIIPGGAAAE DGRLRVNDCI LRVNEVDVSE VSHSKAVEAL KEAGSIVRLY VRRRRPILET
VVEIKLFKGP KGLGFSIAGG VGNQHIPGDN SIYVTKIIDG GAAQKDGRLQ VGDRLLMVNN
YSLEEVTHEE AVAILKNTSD VVYLKVGKPT TIYMTDPYGP PDITHSYSPP MENHLLSGNN
GTLEYKTSLP PISPGRYSPI PKHMLGEDDY TRPPEPVYST VNKLCDKPAS PRHYSPVECD
KSFLLSTPYP HYHLGLLPDS DMTSHSQHST ATRQPSVTLQ RAISLEGEPR KVVLHKGSTG
LGFNIVGGED GEGIFVSFIL AGGPADLSGE LQRGDQILSV NGIDLRGASH EQAAAALKGA
GQTVTIIAQY QPEDYARFEA KIHDLREQMM NHSMSSGSGS LRTNQKRSLY VRAMFDYDKS
KDSGLPSQGL SFKYGDILHV INASDDEWWQ ARRVTLDGDS EEMGVIPSKR RVERKERARL
KTVKFNAKPG VIDSKGDIPG LGDDGYGTKT LRGQEDLILS YEPVTRQEIN YTRPVIILGP
MKDRINDDLI SEFPDKFGSC VPHTTRPKRD YEVDGRDYHF VISREQMEKD IQEHKFIEAG

QYNDNLYGTS VQSVRFVAER GKHCILDVSG NAIKRLQVAQ LYPIAIFIKP KSLEPLMEMN
KRLTEEQAKK TYDRAIKLEQ EFGEYFTAIV QGDTLEDIYN QCKLVIEEQS GPFIWIPSKE KL
Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a

special request, please contact us.

#### Characteristics:

- Made in Germany from design to production by highly experienced protein experts.
- Mouse Dlg2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free

## **Product Details** Grade: Crystallography grade **Target Details** DLG2 Target: Alternative Name Dlg2 (DLG2 Products) Background: Required for perception of chronic pain through NMDA receptor signaling. Regulates surface expression of NMDA receptors in dorsal horn neurons of the spinal cord. Interacts with the cytoplasmic tail of NMDA receptor subunits as well as inward rectifying potassium channels. Involved in regulation of synaptic stability at cholinergic synapses. Part of the postsynaptic protein scaffold of excitatory synapses. {ECO:0000269|PubMed:12890763}. Molecular Weight: 95.8 kDa Including tag. UniProt: Q91XM9 **Application Details Application Notes:** In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though. Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest. Restrictions: For Research Use only Handling Liquid Format: Buffer: 100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer. Handling Advice: Avoid repeated freeze-thaw cycles. -80 °C Storage: Store at -80°C. Storage Comment: Unlimited (if stored properly) **Expiry Date:**



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process