# **PRODUCT INFORMATION**

**Expression system** Baculovirus

**Domain** 1-489aa

**UniProt No.** Q9BQC3

NCBI Accession No. NP\_001375

Alternative Names Diphthamide biosynthesis protein 2, DPH2, DPH2L2

# **PRODUCT SPECIFICATION**

Molecular Weight 53.1 kDa (497aa)

**Concentration** 0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 1mM DTT, 20% glycerol

### Purity

> 85% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

**Tag** His-Tag

Application SDS-PAGE

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# BACKGROUND

### Description

DPH2, also known as diphthamide biosynthesis protein 2, is a homodimer and each of its monomers can bind a [4Fe-4S] cluster. It is the target of ADP ribosylating diphtheria toxin (DT) and Pseudomonas exotoxin A (PE). It was identified by its ability to complement a diphthamide mutant strain, and thus functions in diphthamide biosynthesis. Its loss pre-activates NF-kB and death receptor pathways and renders MCF7 cells hypersensitive to



tumor necrosis factor. Recombinant human DPH2, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

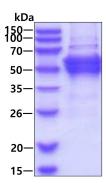
MESMFSSPAE AALQRETGVP GLLTPLPDLD GVYELERVAG FVRDLGCERV ALQFPDQLLG DAVAVAARLE ETTGSKMFIL GDTAYGSCCV DVLGAEQAGA QALIHFGPAC LSPPARPLPV AFVLRQRSVA LELCVKAFEA QNPDPKAPVV LLSEPACAHA LEALATLLRP RYLDLLVSSP AFPQPVGSLS PEPMPLERFG RRFPLAPGRR LEEYGAFYVG GSKASPDPDL DPDLSRLLLG WAPGQPFSSC CPDTGKTQDE GARAGRLRAR RRYLVERARD ARVVGLLAGT LGVAQHREAL AHLRNLTQAA GKRSYVLALG RPTPAKLANF PEVDVFVLLA CPLGALAPQL SGSFFQPILA PCELEAACNP AWPPPGLAPH LTHYADLLPG SPFHVALPPP ESELWETPDV SLITGDLRPP PAWKSSNDHG SLALTPRPQL ELAESSPAAS FLSSRSWQGL EPRLGQTPVT EAVSGRRGIA IAYEDEGSG<L EHHHHHH>

#### **General References**

Zhang Y., et al. (2010) Nature. 465:891-896. Mattheakis LC., et al. (1993) Gene. 132:149-154.

## DATA

#### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.