# Recombinant human Sulfatase Modifying Factor 1/SUMF1 protein

Catalog Number: ATGP3893

## PRODUCT INFORMATION

**Expression system**
Baculovirus

**Domain**
34-374aa

**UniProt No.**
Q8NBK3

**NCBI Accession No.**
NP_877437.2

**Alternative Names**
SUMF1, AAPA3037, FGE, UNQ3037, Formylglycine-generating enzyme, C-alpha-formylglycine-generating enzyme 1, Sulfatase-modifying factor 1

## PRODUCT SPECIFICATION

**Molecular Weight**
38.1 kDa (347aa)

**Concentration**
0.25mg/ml (determined by absorbance at 280nm)

**Formulation**
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% 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**
SUMF1, also known as sulfatase-modifying factor 1 isoform 1, is a Ca2+-binging member of the sulfatase-modifying factor family. This protein as soluble ER lumenal glycoprotein converts inactive sulfatases into an active form by transforming a catalytic site cysteine into a formylglycine residue. In the ER, it can exist as either

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a monomer, or a disulfide-linked homodimer or a heterodimer with SUMF2. The genetic defect of FGly formation caused by mutations in the SUMF1 gene results in inactive FGE, and subsequently multiple sulfatase deficiency, a lysosomal storage disorder. Recombinant Human SUMF1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

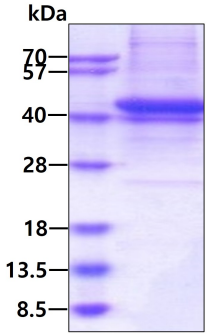
SQEAGTGAGA GSLAGSCGCG TPQRPGAHGS SAAAHRYSRE ANAPGPVPGE RQLAHSKMVP IPAGVFTMGT DDPQIKQDGE APARRVTIDA FYMDAYEVSN TEFEKFVNST GYLTEAEKFG DSFVFEGMLS EQVKTNIQQA VAAAPWWLPV KGANWRHPEG PDSTILHRPD HPVLHVSWND AVAYCTWAGK RLPTEAEWEY SCRGGLHNRL FPWGNKLQPK GQHYANIWQG EFPVTNTGED GFQGTAPVDA FPPNGYGLYN IVGNAWEWTS DWWTVHHSVE ETLNPKGPPS GKDRVKKGGS YMCHRSYCYR YRCAARSQNT PDSSASNLGF RCAADRLPTM D<HHHHHH>

### General References

Preusser-Kunze A., et al, (2005) J. Biol. Chem. 280:14900-14910.
Zito E., et al, (2005) EMBO Rep. 6:655-660.

## DATA

### SDS-PAGE




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