
Product Data Sheet

Product Name: DUSP18 Human, Active

Cat. No.: GP21579

Batch No.: 1

Product Data

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|---------------------|---|--------------------|-------------------------|
| Purity | >98% | Source | Escherichia Coli. |
| Physical Appearance | solid | Shipping Condition | Shipped with Ice Packs. |
| Synonyms | Dual specificity protein phosphatase 18; Low molecular weight dual specificity phosphatase 20; LMW-DSP20; DUSP18; LMWDSP20; VHP; DUSP26. | | |
| Amino Acid Sequence | MGSSHHHHHH SGLVPRGSH MGSMTAPSC AFPVQFRQPS VSGLSQITKS LYISNGVAAN NKLMLSSNQI TMVINVSVEV VNTLYEDIQY MQVPVADSPN SRLCDFDPI ADHIHSVEMK QGRTLLHCAA GVSRSAAALCL AYLMKYHAMS LLDAHTWTKS CRPIIRPNSG FWEQLIHVEF QLFGKNTVHM VSSPVGMIPD IYEKEVRLMI PL | | |
| Formulation | The DUSP18 protein solution (0.5mg/ml) is formulated in 20mM Tris-HCl buffer (pH8.0), 0.1mM PMSF, 1mM DTT, 40% glycerol and 1mM EDTA. | | |

Introduction

Dual specificity phosphatase 18 (DUSP18) belongs to the dual-specificity phosphatase (DSP) family, which catalyzes dephosphorylation of phosphotyrosine and phosphothreonine residues. DUSP18 has a preferential enzymatic activity for phosphorylated tyrosine residues over threonine residues, in addition DUSP18 dephosphorylates p-nitrophenyl phosphate (pNPP) in vitro. Furthermore, DUSP18 is inhibited by iodoacetate and is activated by manganese ions. DUSP18 is extensively expressed with the highest levels in the liver, brain, ovary and testis.

Biological Activity

Specific activity is > 300 units/mg, and is defined as the amount of enzyme that hydrolyze 1.0 nmole of p-nitrophenyl phosphate (pNPP) per minute at pH 7.5 at 37°C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

DUSP18 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 212 amino acids (1-188a.a.) and having a molecular mass of 23.6kDa. DUSP18 is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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