

## 32-6731: DUSP18 Human, Active

**Application :** Functional Assay

**Alternative Name :** Dual specificity protein phosphatase 18, Low molecular weight dual specificity phosphatase 20, LMW-DSP20, DUSP18, LMWDSP20, VHP, DUSP26.

### Description

Source: Escherichia Coli.

Sterile Filtered clear solution.

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.

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.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** 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.

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

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MGSMTAPSC AFPVQFRQPS VSGLSQITKS LYISNGVAAN NKMLLSSNQI  
TMVINVSVEV VNTLYEDIQY MQVPVADSPN SRLCDFDPI ADHIHSVEMK QGRTLLHCAA GVSRSALCL  
AYLMKYHAMS LLDAHTWTKS CRPIIRPNSG FWEQLIHVEF QLFKNTVHM VSSPVGMIIPD IYEKEVRLMI PL

### Application Note

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.