

Recombinant Human ACP1 / LMW-PTP Protein (GST tag)

Cat.NO.: TP06313

3th Edition

Synonyms:HAAP

Description:The low molecular weight phosphotyrosine phosphatase (LMW-PTP), also known as Acid phosphatase 1 (ACP1), belongs to the low molecular weight phosphotyrosine protein phosphatase family and are involved in the regulation of important physiological functions, including stress resistance and synthesis of the polysaccharide capsule. ACP1/LMW-PTP is an enzyme involved in platelet-derived growth factor-induced mitogenesis and cytoskeleton rearrangement. LMW-PTP is able to specifically bind and dephosphorylate activated PDGF receptor, thus modulating PDGF-induced mitogenesis. In vitro, LMW-PTP was found to efficiently dephosphorylate activated FcγRIIA and LAT, but not Syk or phospholipase Cγ2. The overexpression of LMW-PTP inhibited activation of Syk downstream of FcγRIIA and reduced intracellular Ca²⁺ mobilization. It has been demonstrated that LMW-PTP is responsible for FcγRIIA dephosphorylation, and is implicated in the down-regulation of cell activation mediated by this ITAM-bearing immunoreceptor. In addition, ACP1 is a highly polymorphic phosphatase that is especially abundant in the central nervous system and is known to be involved in several signal transduction pathways.

Form:PBS

Molecular Weight:44.3 kDa

Sequences:Met 1-His 158

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 µg of protein (determined by LAL method)

Storage:Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.