



Recombinant Protein Technical Manual

Recombinant Human S100A10 Protein (His Tag)

RPES1896

Product Data:

Product SKU: RPES1896

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: NP_002957.1

Protein Information:

Molecular Mass: 12.6 kDa

AP Molecular Mass: 12.6 kDa

Tag: N-His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 20mM Tris, pH 8.5, 10% glycerol

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: 42C;ANX2L;ANX2LG;CAL1L;Ca[1];CLP11;GP11;MGC111133;p10;P11

Immunogen Information:

Sequence: Pro 2-Lys 97

Background:

S100 protein is a family of low molecular weight protein found in vertebrates characterized by two EF-hand calcium-binding motifs. There are at least 21 different S100 proteins, and the name is derived from the fact that the protein is 100% soluble in ammonium sulfate at neutral pH. Most S100 proteins are disulfide-linked homodimer, and is normally present in cells derived from the neural crest, chondrocytes, macrophages, dendritic cells, etc. S100 proteins have been implicated in a variety of intracellular and extracellular functions. They are involved in regulation of protein phosphorylation, transcription factors, the dynamics of cytoskeleton constituents, enzyme activities, cell growth and differentiation, and the inflammatory response. Protein S100-A10, also known as Calpactin I light chain, Cellular ligand of annexin II, S100 calcium-binding protein A10, p10 protein, p11, ANX2LG and S100A10, is a member of the S100 family of small, dimeric EF hand-type Ca(2+)-binding proteins that generally modulate cellular target proteins in response to intracellular Ca(2+) signals. In contrast to all other S100 proteins, S100A10 is Ca(2+) insensitive because of amino acid replacements in its Ca(2+)-binding loops that lock the protein in a permanently active state. S100A10 forms a heterotetramer with annexin IIH and promotes carcinoma invasion and metastasis by plasminogen activation. S100A10 and annexin II contribute to the aggressive characteristics of anaplastic carcinoma, while playing a constitutive role in papillary carcinoma. S100A10 induces the dimerization of ANXA2 / p36, it may function as a regulator of protein phosphorylation in that the ANXA2 monomer is the preferred target of tyrosine-specific kinase. S100A10 functions as a linker tethering certain transmembrane proteins to annexin A2 thereby assisting their traffic to the plasma membrane and/or their firm anchorage at certain membrane sites.