Recombinant Protein Technical Manual

Recombinant Human S100A8 Protein (E. coli, His Tag)(Active)

RPES3414

Product Data:

Product SKU: RPES3414

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: NP_002955.2

Protein Information:

Molecular Mass:	12.2 kDa
AP Molecular Mass:	12.2 kDa
Tag:	N-His
Bio-activity:	1. Measured by its ability to bind recombinant human S100A9 in a functional ELISA.2. This product displays no activity in cell-based assay.
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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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:	Functional ELISA
Synonyms:	Protein S100-A8;S100A8;Calgranulin-A;Cystic fibrosis antigen;Leukocyte L1 complex light chain;MRP-8;60B8AG;CAGA;CFAG;CGLA;CP0;L1Ag;MA387;MIF;MRP8;NIF;P8

Immunogen Information:

Sequence: Leu 2-Glu 93

Background:

S100A8 is a member of the S100 protein family containing 2EF-hand calcium-binding motifs. S100 proteins are involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. Altered expression of S100A8 protein is associated with various diseases and cancers. S100A8 may have an immunoregulatory role by contributing to the regulation of fetal-maternal interactions. It may play a protective role and its absence may allow infiltration by maternal cells, a process eventually manifesting as resorption. The heterodimeric S100 protein complex S100A8/A9 which has been shown to be involved in inflammatory and neoplastic disorders. The complex can induce cell proliferation, or apoptosis, inflammation, collagen synthesis, and cell migration. S100A8/A9 has emerged as important pro-inflammatory mediator in acute and chronic inflammation. More recently, increased S100A8 and S100A9 levels were also detected in various human cancers, presenting abundant expression in neoplastic tumor cells as well as infiltrating immune cells. On the one hand, S100A8/A9 is a powerful apoptotic agent produced by immune cells, making it a very fascinating tool in the battle against cancer. It spears the risk to induce auto-immune response and may serve as a lead compound for cancer-selective therapeutics. In contrast, S100A8/A9 expression in cancer cells has also been associated with tumor development, cancer invasion or metastasis. Altogether, its expression and potential cytokine-like function in inflammation and in cancer suggests that S100A8/A9 may play a key role in inflammation-associated cancer.