Recombinant Protein Technical Manual

Recombinant Human S100A3/S100E Protein (His & MBP Tag)

RPES3455

Product Data:

Product SKU: RPES3455

Species: Human

Uniprot: P33764

Size: 50µg

Expression host: E. coli

Protein Information:

Molecular Mass:	55.3 kDa
AP Molecular Mass:	50 kDa
Tag:	N-His & MBP
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℃ 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 PBS, 20% glycerol, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	S100E

Background:

Protein S100-A3, also known as Protein S00E, S100 calcium-binding protein A3, S100A3 and S100E, is a member of the S00 family. S100A3 / S100E contains 2 EF-hand domains. S100A3 / S100E is highly expressed in the differentiating cuticular cells within the hair follicle and organized into mature hair cuticles. High concentrations of S100A3 homotetramer might provide the millimolar level of Ca2+ required for hair cuticular barrier formation. S100A3 / S100E is a unique member of the Ca2+-binding S100 protein family with the highest cysteine content and affinity for Zn2+. S100A3 / S100E binds both calcium and zinc. S100A3 / S100E probably binds 2 zinc ions per molecule. It may be involved in calcium-dependent cuticle cell differentiation and hair shaft formation. S100A3 plays an important role in calcium-dependent processes leading to hair shaft formation. S100A3 / S100E is a unique protein among all members of the calcium-binding S100 family, is specifically expressed at the inner endocuticle of human hair fibers. Upon hair damage, S100A3 / S100E is released from hair fibers and possibly destabilizes the hair tissue architecture.