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

Catalog Number: PKSH031248

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

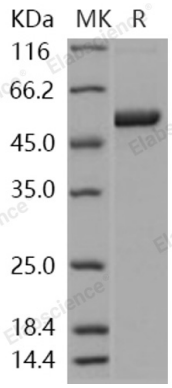
Description

Species	Human
Source	E.coli-derived Human S100A3/S100E protein Met 1-Gln 101, with an N-terminal His & MBP
Calculated MW	55.3 kDa
Observed MW	50 kDa
Accession	P33764
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. 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 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Protein S100-A3, also known as Protein S-100E, S100 calcium-binding protein A3, S100A3 and S100E, is a member of the S-100 family. S100A3 / S100E contains 2EF-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.