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

#### Catalog No. PKSH031248

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

Description	
Synonyms	S100E
Species	Human
Expression Host	E.coli
Sequence	Met 1-Gln 101
Accession	P33764
Calculated Molecular Weight	55.3 kDa
Observed molecular weight	50 kDa
Tag	N-His-MBP
Bioactivity	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°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 PBS, 20% glycerol, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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

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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 / 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.

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