

# Recombinant human 14-3-3 sigma protein

Catalog Number: ATGP0435

## PRODUCT INFORMATION

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**Expression system**

E.coli

**Domain**

1-248aa

**UniProt No.**

P31947

**NCBI Accession No.**

NP\_006133

**Alternative Names**

stratifin, Epithelial cell marker protein 1, HME1, YWHAS, SFN, 14-3-3 sigma

## PRODUCT SPECIFICATION

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**Molecular Weight**

27.7 kDa (248aa) confirmed by MALDI-TOF

**Concentration**

1mg/ml (determined by Bradford assay)

**Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 50mM NaCl, 10% glycerol

**Purity**

&gt; 95% by SDS-PAGE

**Tag**

Non-Tagged

**Application**

SDS-PAGE

**Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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**Description**

14-3-3 sigma, also known as Stratifin (SFN), belong to the 14-3-3 family. The 14-3-3 family of proteins plays a key regulatory role in signal transduction, checkpoint control, apoptotic and nutrient-sensing pathways. 14-3-3 proteins are highly conserved and ubiquitously expressed. There are at least seven isoforms, beta, gamma, epsilon, sigma, zeta, tau and eta that have been identified in mammals. 14-3-3 sigma was identified as an epithelial cell marker and appeared to function as a tumor suppressor whose expression can be down regulated via methylation. Loss of 14-3-3 sigma expression results in a defective G2/M phase checkpoint and appears to

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contribute to both epithelial and non-epithelial tumorigenesis. Recombinant human 14-3-3 sigma was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

MERASLIQKA KLAEQAERYE DMAAFMKGAV EKGEELSCEE RNLLSVAYKN VVGGQRAAWR VLSSIEQKSN EEGSEEKGPE  
VREYREKVVET ELQGVCDTVL GLLDSHLIKE AGDAESRVFY LKMKGDYYRY LAEVATGDDK KRIIDSARSA YQEAMDISKK  
EMPPTNPIRL GLALNFSVFH YEIANSPEEA ISLAKTTFDE AMADLHTLSE DSYKDSTLIM QLLRDNLTLW TADNAGEEGG  
EAPQEPOS

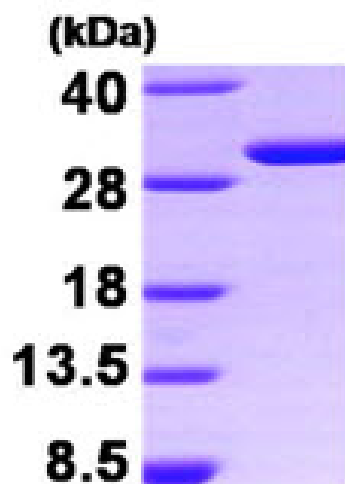
### General References

Benzinger A., et al. (2005) *Mol Cell Proteomics*. 4(6): 785-95.

Wilker E W., et al. (2005) *J Biol Chem*. 280:18891-18898.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)