

# Product Data Sheet

# S100P Protein, Human (N-His)

Cat. No.:	HY-P71138A
Synonyms:	Protein S100-P; Protein S100-E; S100 Calcium-Binding Protein P; S100P; S100E
Species:	Human
Source:	E. coli
Accession:	P25815 (T2-K95)
Gene ID:	6286
Molecular Weight:	Approximately 11.57 kDa

PROPERTIES	
AA Sequence	TELETAMGMI IDVFSRYSGS EGSTQTLTKG ELKVLMEKEL PGFLQSGKDK DAVDKLLKDL DANGDAQVDF SEFIVFVAAI TSACHKYFEK AGLK
<b>Biological Activity</b>	Data is not available
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu m$ filtered solution of 20 mM PB,150 mM NaCl, pH 7.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

#### DESCRIPTION

## Background

The S100P Protein exhibits a multifaceted role as a calcium sensor, actively contributing to cellular calcium signaling. In a calcium-dependent manner, it engages in interactions with various proteins, including EZR and PPP5C, thereby indirectly participating in physiological processes such as the formation of microvilli in epithelial cells. Notably, S100P may stimulate cell proliferation through autocrine activation of the receptor for activated glycation end products (RAGE). Existing as a homodimer and forming heterodimers with S100A1, S100P also interacts with S100PBP and S100Z, and in a calcium-dependent manner, associates with CACYBP. The dimeric form of S100P binds to and activates EZR/Ezrin by revealing its F-actin binding sites, while its calcium-dependent interaction with PPP5C modulates PPP5C activity, providing further insight

into the diverse regulatory roles of S100P in cellular processes.

### Caution: Product has not been fully validated for medical applications. For research use only.

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