S100A2 Protein, Human

Cat. No.:	HY-P72481
Synonyms:	Protein S100-A2; CAN19; Protein S-100L; S100 calcium-binding protein A2; S100A2; S100L
Species:	Human
Source:	E. coli
Accession:	P29034 (M1-P98)
Gene ID:	6273
Molecular Weight:	Approximately 10.53 kDa

PROPERTIES

AA Sequence	M M C S S L E Q A L A V L V T T F H K Y S C Q E G D K F K L S K G E M K E L L H K E L P S F V G E K V D E E G L K K L M G S L D E N S D Q Q V D F Q E Y A V F L A L I T V M C N D F F Q G C P D R P
Biological Activity	Measured by its ability to chemoattract A549 Human non-small cell lung cancer cells. The ED_{50} this effect is 13.09 ng/mL, corresponding to a specific activity is 7.64×10^4 U/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
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_2O. 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	S100A2 Protein emerges as a potential calcium sensor and modulator, actively contributing to cellular calcium signaling. Through interactions with various proteins, including TPR-containing proteins, S100A2 indirectly influences numerous physiological processes. Additionally, it may play a role in suppressing tumor cell growth. Existing as a homodimer, S100A2 interacts with FKBP4, revealing its involvement in diverse molecular associations. Notably, its calcium-dependent interaction with PPP5C, mediated by TPR repeats, modulates PPP5C activity, underscoring S100A2's regulatory impact on cellular processes. Furthermore, its interaction with TPPP inhibits TPPP dimerization, as evidenced in recent studies. The

multifaceted functions of S100A2 highlight its potential as a key player in cellular signaling and tumor growth suppression.

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