NEUROMICS

Recombinant Human Calpain, Small Subunit 1 Protein Datasheet

Catalog Number: PR27279 **Product Type:** Recombinant Protein

Source: E. Coli

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSRTHYSNI EANESEEVRQ FRRLFAQLAG DDMEVSATEL MNILNKVVTR HPDLKTDGFG IDTCRSMVAV MDSDTTGKLG FEEFKYLWNN IKRWQAIYKQ FDTDRSGTIC SSELPGAFEA AGFHLNEHLY NMIIRRYSDE SGNMDFDNFI SCLVRLDAMF RAFKSLDKDG TGQIQVNIQE WLQLTMYS.

Description/Molecular Mass: Calpain, Small Subunit 1 (CAPNS1) belongs to the calpain small subunit family. Calpains are a ubiquitous, well-conserved family of calcium-dependent, cysteine proteases, widely distributed in mammalian cells. Calpain families are implicated in neurodegenerative processes, considering that their activation can be triggered by calcium influx and oxidative stress. Calpains function as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by the CAPNS1 gene. The CAPNS1 protein is vital for the stability and function of both calpain heterodimers, whose proteolytic activities influence numerous cellular functions including apoptosis, proliferation, migration, adhesion, and autophagy.

CAPNS1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 208 amino acids (84-268) and having a molecular mass of 23.8 kDa.
CAPNS1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Purity: Greater than 95.0% as determined by:
(a) Analysis by SDS-PAGE.

Format: The CAPNS1 solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl, 20% glycerol and 1mM DTT.

Storage: Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage, it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

FOR RESEARCH USE ONLY

Neuromics • 5325 West 74th Street, Suite 8 • Edina, MN 55439
phone 866-350-1500 • fax 612-677-3976 • e-mail pshuster@neuromics.com