

## CLSTN1 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P76271
<b>Synonyms:</b>	Calsyntenin-1; Alcadein-alpha; SAlc-alpha; CTF1-alpha; CS1; KIAA0911
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	O94985-1 (A29-T859)
<b>Gene ID:</b>	22883
<b>Molecular Weight:</b>	Approximately 95-130 kDa due to the glycosylation

### PROPERTIES

#### AA Sequence

ARV NKHKPWL	EPTYHGIVTE	NDNTVLLDPP	LIALDKDAPL
RFAESFEVTV	TKEGEICGFK	IHGQNVPFDA	VVVDKSTGEG
VIRSKKLDLC	ELQKDYSFTI	QAYDCGKGPD	GTVNKKSHKA
TVHIQVNDVN	EYAPVFKEKS	YKATVIEGKQ	YDSLIRVEAV
DADCS PQFSQ	ICSYE IITPD	VPFTVDKDG Y	IKNTEKLN YG
KEHQYKLTVT	AYDCGKKRAT	EDVLVKISIK	PTCTPGWQGW
NNRIEYEPGT	GALAVFPNIH	LETCDPEVAS	VQATVELETS
HIGKGC DRDT	YSEKSLHRLC	GAAAGTAELL	PSPSGSLNWT
MGLPTDNGHD	SDQVFEFNGT	QAVRIPDGVV	SVSPKEPFTI
SVWMRHG PFG	RKKETILCSS	DKTDMNRHHY	SLYVHGCR LI
FLFRQDPSEE	KKYRPAEFHW	KLNQVCDEEW	HHYVLNVEFP
SVTLYVDGTS	HEPFSVTEDY	PLHPSKIETQ	LVVGACWQEF
SGVENDNETE	PVTVASAGGD	LHMTQFFRGN	LAGLTLRSGK
LADKKVIDCL	YTCKEGLDLQ	VLEDSGRGVQ	IQAHPSQLVL
TLEGEDLGEL	DKAMQHISYL	NSRQFPTPGI	RRLKITSTIK
CFNEATCISV	PPVDGYVMVL	QPEEPKISLS	GVHHFARAAS
EFESSEGVFL	FPELR IISTI	TREVEPEGDG	AEDPTVQESL
VSEEIVHDL D	TCEVTVEGEE	LNHEQESLEV	DMARLQQKGI
EVSSSELGMT	FTGVDTMASY	EEVLHLLRYR	NWHARSL LDR
KFKLICSELN	GRYISNEFKV	EVNVIHTANP	MEHANHMAAQ
PQFVHPEHRS	FVDLSGHNLA	NPHPF AVVPS	T

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

#### Endotoxin Level

<1 EU/µg, determined by LAL method.

#### Reconstitution

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**

CLSTN1 Protein functions as a postsynaptic adhesion molecule, fostering both excitatory and inhibitory synapse formation by binding to presynaptic neurexins. In the realm of synapse development, CLSTN1 acts as a cell adhesion molecule at the postsynaptic membrane, forming associations with neurexin-alpha at the presynaptic membrane. Beyond its role in synapse formation, CLSTN1 serves as a molecular adapter, participating in axonal anterograde transport by promoting KLC1 association with vesicles. Moreover, it engages in complex formation with APBA2 and APP, stabilizing APP metabolism and enhancing APBA2-mediated suppression of beta-APP40 secretion, contributing to the regulation of intracellular APP maturation. As the intracellular fragment AICD, CLSTN1 plays a role in suppressing APBB1-dependent transactivation stimulated by APP C-terminal intracellular fragment (AICD), potentially by competing with AICD for APBB1-binding. These diverse functions underscore the versatile role of CLSTN1 in orchestrating molecular events critical for synapse development and intracellular signaling.

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

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