



CAPN8 peptide (DAG-P0230)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

Calpain proteinases are defined currently as papain like neutral proteases that are calcium activated. Calpains 1 and 2 are composed of a large subunit, which is proteolytically active, and a small subunit (also called calpain 4), or enhancer protein, that is not proteolytically active. The other calpain proteins identified to date are not known to require a small subunit, although there is evidence that the calpain small subunit #2 may act as a chaperonin in the folding of calpains, and then disassociate. Domains in the large subunit include the amino terminal domain I, the proteinase domain II, domain III, and the EF hand domain IV (Domain T in calpains 5 & 6). Calpain 8, also known as NCL 2 (novel calpain 2), was originally characterized in rodents as a stomach specific protein, but the human sequence was isolated from leukocytes. Most similar to calpain 2 (60 % identical to rat or human sequences), murine calpain 8 is also known as a truncated form (Calpain NCL-2), lacking the calcium binding domain, and most of domain III. Homology between human calpain 8 and human calpain 9 (the human stomach specific calpain) is much lower; calpain 9 is more similar to calpain 3. Homology between rat, mouse and human calpain 8 is high. The large subunit of calpain 8 zymogen runs at approximately 80 Kd, and the amino terminal truncation at activation yields an approximately 60 kD form. Cleavage of the carboxyterminal region generates smaller forms of Calpain 8, but it is not clear if these forms are proteolytically active.

Conjugate	Unconjugated
Applications	ELISA, WB
Format	Liquid
Buffer	Preservative: None Constituents: 0.001% Tween 20, 30mM HEPES, 2mM EDTA, 150mM Sodium chloride, pH 6.75
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Preservative: None Constituents: 0.001% Tween 20, 30mM HEPES, 2mM EDTA, 150mM Sodium chloride, pH 6.75

GENE INFORMATION

Gene Name	Capn8 calpain 8 [Mus musculus (house mouse)]
Official Symbol	CAPN8
Synonyms	CAPN8; calpain 8; nCL-2; nCL-2; calpain-8; new calpain 2; stomach-specific M-type calpain; stomach-specific calpain (nCL-2);
Entrez Gene ID	170725
mRNA Refseq	NM_001145806.1
Protein Refseq	NP_001139278.1
UniProt ID	Q91VA3
Chromosome Location	1; 1 H4
Function	calcium ion binding; calcium-dependent cysteine-type endopeptidase activity; cysteine-type peptidase activity; hydrolase activity; metal ion binding; peptidase activity;