

Rabbit Anti-Phospho-Caspase-9 (Ser196)/AF350 Conjugated antibody

SL5241R-AF350

Product Name	Anti-Phospho-Caspase-9 (Ser196)/AF350
Chinese Name	AF350 标记的磷酸化半胱氨酸蛋白酶 9 抗体
Alias	APAF 3; APAF3; Apoptosis related cysteine peptidase; Apoptotic protease activating factor 3; Apoptotic protease Mch 6; CASP 9; CASP9; Caspase 9 Dominant Negative; Caspase 9 precursor; Caspase 9c; Caspase9; EC 3.4.22.; ICE LAP6; ICE like apoptotic protease 6; MCH6 antibody RNCASP9; CASP9_HUMAN.
Product Type	Phosphorylated anti
Research Area	Tumour immunology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat
Applications	IF=1:100-500,ICC/IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	35kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated Synthesised phosphopeptide derived from human CASP9 around the phosphorylation site of Ser196
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	background:

Caspase 9 (also known as ICE like apoptotic protease 6 (ICE LAP6), apoptotic protease Mch6, and apoptotic protease activating factor 3 (Apaf3)) is a member of the peptidase family C14 that contains a CARD domain. This caspase is active as a heterotetramer and has been reported to have two isoforms. ProCaspase 9 has been reported to be approximately 47 kD. This caspase is present in the cytosol and, upon activation, translocates to the mitochondria. Caspase 9 is involved in the caspase activation cascade responsible for apoptosis execution and cleaves/activates Caspase 3 and Caspase 6. Caspase 9 is inhibited by the dominant negative isoform, BclXL, cIAP1, cIAP2, XIAP, and Livin. This caspase becomes activated when recruited to Apaf1/cytochrome c complex, and following cleavage by Apaf1, granzyme B, Caspase 3, possibly Caspase 8 and Caspase 10 into large p37 and small p10 subunits. Caspase 9 interacts with BIRC7 and has been shown to cleave PARP and vimentin.

Function:

Involved in the activation cascade of caspases responsible for apoptosis execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates caspase-3. Proteolytically cleaves poly(ADP-ribose) polymerase (PARP). Isoform 2 lacks activity is an dominant-negative inhibitor of caspase-9.

Subunit:

Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 35 kDa (p35) and a 10 kDa (p10) subunit. Caspase-9 and APAF1 bind to each other via their respective NH2-terminal CED-3 homologous domains in the presence of cytochrome C and ATP. Interacts with the inhibitors BIRC2, BIRC4, BIRC5 and BIRC7. Interacts (inactive form) with EFHD2. Interacts with HAX1.

Tissue Specificity:

Ubiquitous, with highest expression in the heart, moderate expression in liver, skeletal muscle, and pancreas. Low levels in all other tissues. Within the heart, specifically expressed in myocytes.

Post-translational modifications:

Cleavages at Asp-315 by granzyme B and at Asp-330 by caspase-3 generate the two active subunits. Caspase-8 and -10 can also be involved in these processing events.

Phosphorylated at Thr-125 by MAPK1/ERK2. Phosphorylation at Thr-125 is sufficient to block caspase-9 processing and subsequent caspase-3 activation.

Similarity:

Belongs to the peptidase C14A family.

Contains 1 CARD domain.

Database links:

UniProtKB/Swiss-Prot: P55211.3

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Caspase-9 半胱氨酸蛋白酶家族成员之一，又称 ICE-Lap6 (ICE Like apoptotase 6) 参与 Apoptosis 过程和 cell factor 的加工过程，在许多胚胎和成人组织中都有分布。此抗体主要用于 Tumour 凋亡的研究。