

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse GSAP in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse GSAP Arg737-Leu858 Accession # Q3TCV3
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

GSAP (GSAP/gamma-Secretase Activating Protein; also known as Pion) is a member of the GSAP family of proteins. It is expressed in neurons, and purportedly serves as a regulator for g-secretase processing of APP. Initially, it was thought that cytosolic g-secretase mediated the second cleavage step in APP processing. In the presence of GSAP, APP (now C99 after b-secretase cleavage) was preferentially cleaved between either Val40-Ile41, or Ala42-Thr43, generating Ab40 and Ab42, respectively. In the absence of GSAP, APP would be preferentially cleaved between L49-Val50. Notably, the presence of GSAP was shown to have no effect on g-secretase processing of Notch. Subsequent studies have introduced uncertainty into these relationships. While an absence of GSAP does apparently reduce Ab production, its presence may not have the regulatory effect once proposed. Mouse GSAP-16K (15-17 kDa) is 121 amino acids (aa) in length (aa 738-858) (SwissProt #Q3TCV3), it presumably represents a proteolytic cleavage product of the large 95-100 kDa, 858 aa GSAP-FL termed also Pion/pigeon homolog protein. There are no readily identifiable structural motifs associated with the molecule. Mouse PION has two isoform variants associated with the gene. One possesses a Phe substitution for aa 172-858, while another possesses a six aa substitution for aa 527-858. Over aa 737-858, mouse GSAP shares 94% and 88% aa sequence identity with rat and human GSAP, respectively.

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