

# Rabbit Anti-E1 Ubiquitin Activating Enzyme antibody

# SL6835R

<b>Product Name:</b>	E1 Ubiquitin Activating Enzyme
Chinese Name:	Ubiquitin激活酶E1抗体
Alias:	Uba1; A1S9; A1S9 protein; A1S9T and BN75 temperature sensitivity complementing; A1S9T; A1ST; GXP 1; GXP1; MGC4781; Protein A1S9; UBA1_HUMAN; UBE 1; UBE 1X; UBE1; UBE1X; Ubiquitin activating enzyme E1; Ubiquitin-activating enzyme E1; Ubiquitin-like modifier-activating enzyme 1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow, Horse, Rabbit, Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	118kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human UBE1:961-1058/1058
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% 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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	The protein encoded by this gene catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation. This gene complements an X-linked mouse

temperature-sensitive defect in DNA synthesis, and thus may function in DNA repair. It is part of a gene cluster on chromosome Xp11.23. Alternatively spliced transcript variants that encode the same protein have been described. [provided by RefSeq, Jul 2008].

## **Function:**

Activates ubiquitin by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding an ubiquitin-E1 thioester and free AMP.

#### **Subunit:**

Monomer (By similarity). Interacts with GAN (via BTB domain).

## Post-translational modifications:

ISGylated.

#### **DISEASE:**

Defects in UBA1 are the cause of spinal muscular atrophy X-linked type 2 (SMAX2) [MIM:301830]; also known as X-linked lethal infantile spinal muscular atrophy, distal X-linked arthrogryposis multiplex congenita or X-linked arthrogryposis type 1 (AMCX1). Spinal muscular atrophy refers to a group of neuromuscular disorders characterized by degeneration of the anterior horn cells of the spinal cord, leading to symmetrical muscle weakness and atrophy. SMAX2 is a lethal infantile form presenting with hypotonia, areflexia, and multiple congenital contractures.

#### Similarity:

Belongs to the ubiquitin-activating E1 family.

# **SWISS:**

P22314

## Gene ID:

7317

# Database links:

Entrez Gene: 7317Human

Entrez Gene: 22201Mouse

Entrez Gene: 314432Rat

Omim: 314370Human

SwissProt: P22314Human

SwissProt: Q02053Mouse

SwissProt: Q5U300Rat

Unigene: 533273Human

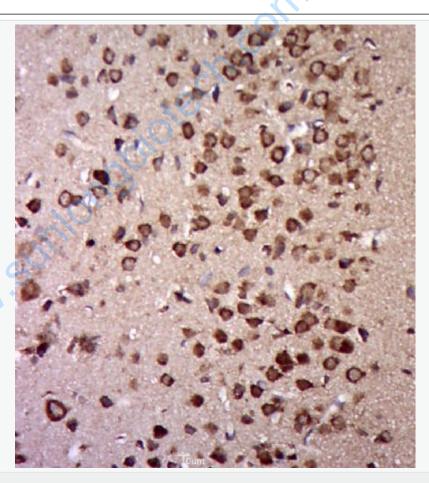
<u>Unigene: 1104</u>Mouse

Unigene: 474674 Mouse

Unigene: 11800Rat

# **Important Note:**

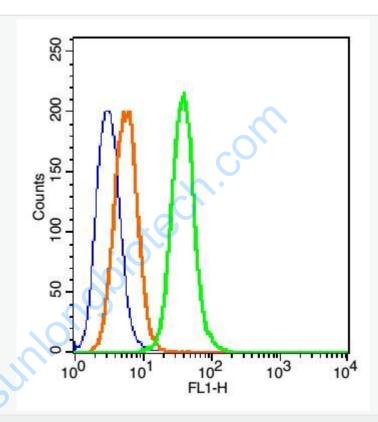
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# Picture:

Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for

30min; Antibody incubation with (E1 Ubiquitin Activating Enzyme) Polyclonal Antibody, Unconjugated (SL6835R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control(blue):293T Cells(fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice).

Primary Antibody: Rabbit Anti-E1 Ubiquitin Activating Enzyme/AF488 Conjugated antibody (SL6835R), Dilution: 1ug in 100 ul 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG/AF488(orange) ,used under the same conditions.