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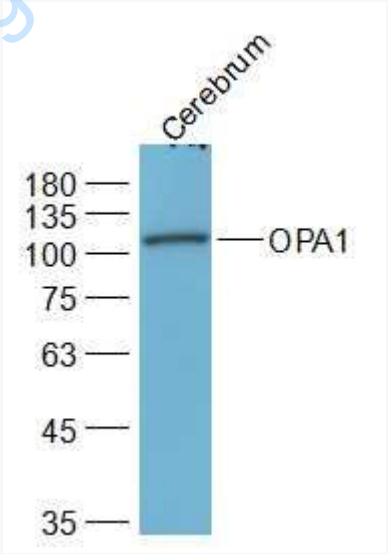
Rabbit Anti-OPA1 antibody

SL11764R

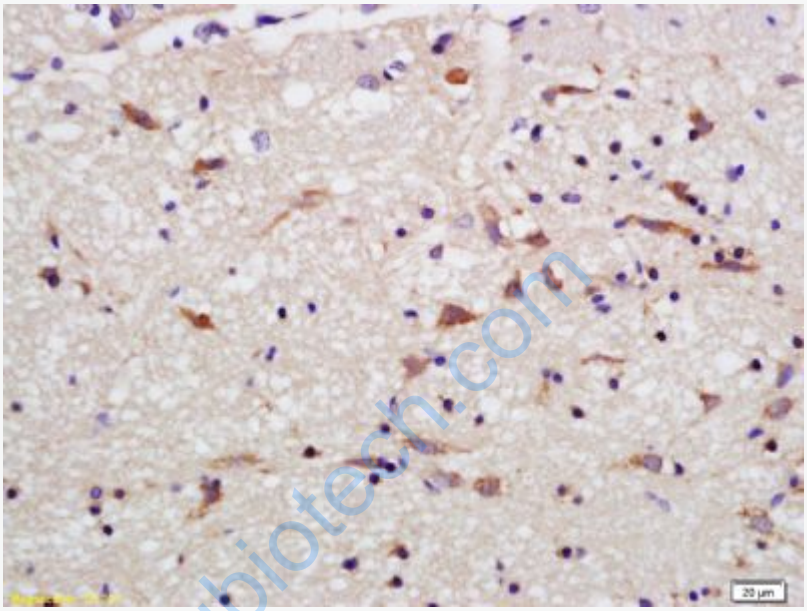
Product Name:	OPA1
Chinese Name:	视神经萎缩相关蛋白1抗体
Alias:	Dynamin like 120 kDa protein; Dynamin like 120 kDa protein, mitochondrial; Dynamin-like 120 kDa protein; Dynamin-like 120 kDa protein, form S1; FLJ12460; Juvenile kjer type optic atrophy; Juvenile kjer-type optic atrophy; KIAA0567; KJER type; Large GTP binding protein; largeG; MGM1; Mitochondrial dynamin like 120 kDa protein; Mitochondrial dynamin like GTPase; NPG; NTG; OAK; OPA 1; OPA1; OPA1 gene; OPA1_HUMAN; Optic atrophy 1 (autosomal dominant); OPTIC ATROPHY 1; Optic atrophy 1 gene protein; Optic atrophy 1 homolog (human); Optic atrophy protein 1; Optic atrophy protein 1 homolog.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=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:	111kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human OPA1:651-750/960
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:	PubMed

Product Detail:	OPA1 is a 120kDa protein belonging to the dynamin family. The OPA1 gene has been localized to 3q29. The gene is targeted to mitochondria and is involved in mitochondrial biogenesis. Defects in OPA1 are a cause of optic atrophy type 1. OPA1 is mostly expressed in retina but can also be expressed in brain, testis, heart and skeletal muscle. **Function:** Dynamin-related GTPase required for mitochondrial fusion and regulation of apoptosis. May form a diffusion barrier for proteins stored in mitochondrial cristae. Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space. **Subcellular Location:** Mitochondrion inner membrane. Mitochondrion intermembrane space. **Tissue Specificity:** Highly expressed in retina. Also expressed in brain, testis, heart and skeletal muscle. Isoform 1 expressed in retina, skeletal muscle, heart, lung, ovary, colon, thyroid gland, leukocytes and fetal brain. Isoform 2 expressed in colon, liver, kidney, thyroid gland and leukocytes. Low levels of all isoforms expressed in a variety of tissues. **Post-translational modifications:** PARL-dependent proteolytic processing releases an antiapoptotic soluble form not required for mitochondrial fusion. **DISEASE:** Defects in OPA1 are a cause of optic atrophy type 1 (OPA1) [MIM:165500]. OPA1 is a dominantly inherited optic neuropathy occurring in 1 in 50,000 individuals that features progressive loss in visual acuity leading, in many cases, to legal blindness. Defects in OPA1 are the cause of optic atrophy 1 with deafness (OPA1D) [MIM:125250]. Some individuals with mutations in OPA1 manifest also ophthalmoplegia and myopathy. **Similarity:** Belongs to the dynamin family. **SWISS:** O60313 **Gene ID:** 4976 **Database links:** Entrez Gene: 424900Chicken

	Entrez Gene: 4976Human Entrez Gene: 74143Mouse Entrez Gene: 171116Rat Omim: 605290Human SwissProt: O60313Human SwissProt: P58281Mouse SwissProt: Q2TA68Rat Unigene: 594504Human Unigene: 274285Mouse Unigene: 9783Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: Cerebrum (Rat) Lysate at 40 ug Primary: Anti-OPA1 (SL11764R) at 1/2000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 111 kD

Observed band size: 111 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-OPA1 Polyclonal Antibody, Unconjugated(SL11764R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining