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Rabbit Anti-Mafa antibody

SL0924R

Product Name:	Mafa
Chinese Name:	v-maf 肌腱膜纤维肉瘤癌基因同源物A抗体
Alias:	Mafa homolog; V-maf musculoaponeurotic fibrosarcoma oncogene homolog A; Pancreatic beta-cell-specific transcriptional activator;(avian)(V-maf musculoaponeurotic fibrosarcoma oncogene homolog A; MAFA_MOUSE.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
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:	37kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from mouse Mafa:265-359/359
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:	Insulin gene expression is regulated by several islet-enriched transcription factors. However, MAFA is the only beta cell-specific activator. MAFA selectively induces endogenous insulin transcription in non-beta cells. MAFA was also first detected in the insulin-producing cells formed during the second and predominant phase of beta cell differentiation, and absent in the few insulin-positive cells found in Nkx6.1(-/-)

pancreata, which lack the majority of second-phase beta cells. These results demonstrate that MAFA is a potent insulin activator that is likely to function downstream of Nkx6.1 during islet insulin-producing cell development.

Function:
Acts as a transcriptional factor. Specifically binds the insulin enhancer element RIPE3b. Cooperates synergistically with NEUROD1 and PDX1. Phosphorylation by GSK3 increases its transcriptional activity and is required for its oncogenic activity. Regulates the insulin gene transcription. Involved either as an oncogene or as a tumor suppressor, depending on the cell context.

Subunit:
Binds DNA as a homodimer. Interacts with PCAF. Interacts with NEUROD1 and PDX1.

Subcellular Location:
Nucleus. Note=Detected in nuclei of pancreas islet beta cells.

Tissue Specificity:
Selectively expressed in pancreatic beta but not in alpha cells (at protein level). Expressed in eyes and at low levels in thymus. Expressed in brain, lung, spleen and kidney. Expressed in embryo.

Post-translational modifications:
Ubiquitinated, leading to its degradation by the proteasome.
Phosphorylation by GSK3 requires prior phosphorylation of Ser-65 by another kinase. Phosphorylation proceeds then from Ser-61 to Thr-57, Thr-53 and Ser-49. GSK3-mediated phosphorylation increases its transcriptional activity through the recruitment of the coactivator PCAF, is required for its transforming activity and leads to its degradation through an ubiquitin/proteasome-dependent pathway. Ser-14 and Ser-65 appear to be the major phosphorylation sites. Phosphorylated by MAPK13 on serine and threonine residues (Probable).

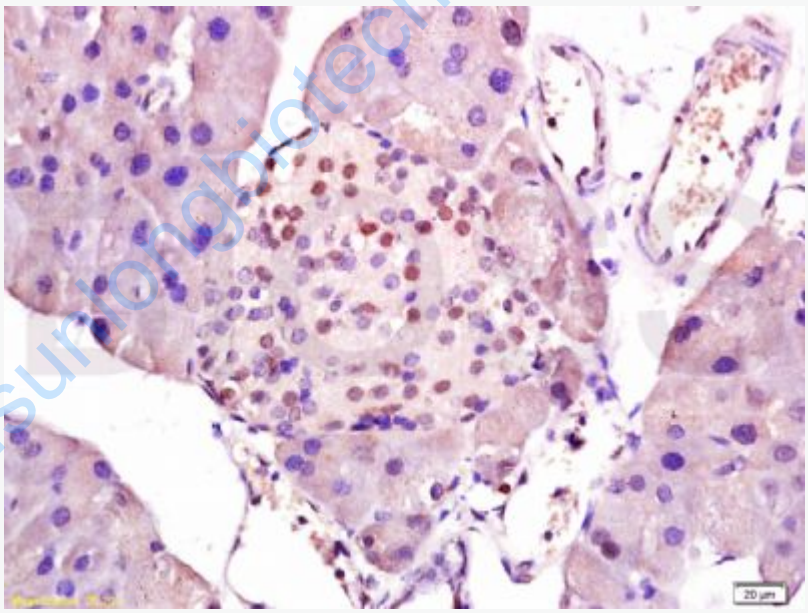
Similarity:
Belongs to the bZIP family. Maf subfamily.
Contains 1 bZIP (basic-leucine zipper) domain.

SWISS:
Q8CF90

Gene ID:
378435

Database links:

Entrez Gene: 389692Human

	Entrez Gene: 378435Mouse Entrez Gene: 366949Rat Omim: 610303Human SwissProt: Q8NHW3Human SwissProt: Q8CF90Mouse Unigene: 521914Human Unigene: 309589Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Tissue/cell: rat pancreas 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-Mafa Polyclonal Antibody, Unconjugated(SL0924R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and

	DAB(C-0010) staining