SunLong Biotech Co.,LTD
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**[ Primary Antibody ]**

# Rabbit Anti-Mafa antibody

**Catalog Number: SL22235R**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

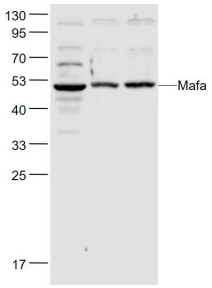
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|---|---|
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | Mafa |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human Mafa : 71-170/352 |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. |
| **Applications:** | WB=1:500-2000<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Mouse, Rat, (predicted: Human, Chicken, Pig, Cow) |
| **Predicted MW.:** | 37kDa |
| **Subcellular Location:** | The nucleus |
| **Background:** | 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.<br>**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. |

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

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|---|---|
| | **Subunit:** Binds DNA as a homodimer. Interacts with PCAF. Interacts with NEUROD1 and PDX1.<br>**Subcellular Location:** Nucleus. Note=Detected in nuclei of pancreas islet beta cells.<br>**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.<br>**Post-translational modifications:** Ubiquitinated, leading to its degradation by the proteasome.<br>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).<br>**Similarity:** Belongs to the bZIP family. Maf subfamily.<br>Contains 1 bZIP (basic-leucine zipper) domain.<br>**Database links:**<br>**Entrez Gene:** 389692 Human<br>**Entrez Gene:** 378435 Mouse<br>**Entrez Gene:** 366949 Rat<br>Omim: 610303 Human<br>**SwissProt:** Q8NHW3 Human<br>**SwissProt:** Q8CF90 Mouse<br>**Unigene:** 521914 Human<br>**Unigene:** 309589 Mouse |

## [ VALIDATION IMAGES ]




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Sample:
Cerebrum (Rat) Lysate at 40 ug
Lung (Mouse) Lysate at 40 ug
Spleen (Mouse) Lysate at 40 ug
Primary: Anti- Mafa (SL22235R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 37 kD
Observed band size: 50 kD

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