

## IL-4I1 polyclonal antibody

Catalog: BS67345

Host: Rabbit

Reactivity: Human, Mouse, Rat

### BackGround:

Secreted L-amino-acid oxidase that acts as a key immunoregulator. Has preference for L-aromatic amino acids: converts phenylalanine (Phe), tyrosine (Tyr) and tryptophan (Trp) to phenylpyruvic acid (PP), hydroxyphenylpyruvic acid (HPP), and indole-3-pyruvic acid (I3P), respectively. Also has weak L-arginine oxidase activity. Acts as a negative regulator of anti-tumor immunity by mediating Trp degradation via an indole pyruvate pathway that activates the transcription factor AHR. IL4I1-mediated Trp catabolism generates I3P, giving rise to indole metabolites (indole-3-acetic acid (IAA) and indole-3-aldehyde (I3A)) and kynurenic acid, which act as ligands for AHR, a ligand-activated transcription factor that plays important roles in immunity and cancer. AHR activation by indoles following IL4I1-mediated Trp degradation enhances tumor progression by promoting cancer cell motility and suppressing adaptive immunity. Also has an immunoregulatory function in some immune cells, probably by mediating Trp degradation and promoting downstream AHR activation: inhibits T-cell activation and proliferation, promotes the differentiation of naive CD4<sup>+</sup> T-cells into FOXP3<sup>+</sup> regulatory T-cells (Treg) and regulates the development and function of B-cells. Also regulates M2 macrophage polarization by inhibiting T-cell activation (By similarity). Also has antibacterial properties by inhibiting growth of Gram negative and Gram positive bacteria through the production of NH<sub>4</sub><sup>+</sup> and H<sub>2</sub>O<sub>2</sub>.

### Product:

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 65 kDa

### Swiss-Prot:

Q96RQ9

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB (1/500 - 1/2000)

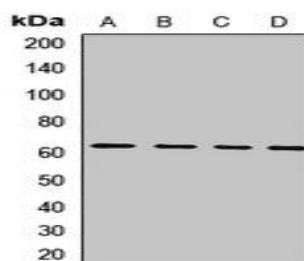
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

Recognizes endogenous levels of IL-4I1 protein.

### DATA:



Western blot analysis of IL-4I1 expression in HepG2 (A), SKOV3 (B), mouse testis (C), rat testis (D) whole cell lysates.

### Note:

For research use only, not for use in diagnostic procedure.

### Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: [info@bioworld.com](mailto:info@bioworld.com)

Tel: 6123263284

Fax: 6122933841

### Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: [info@biogot.com](mailto:info@biogot.com)

Tel: 0086-025-68037686

Fax: 0086-025-68035151