bs-5808R **[Primary Antibody]**

CDO1 Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1036 **SWISS:** Q16878

Target: CDO1

Immunogen: KLH conjugated synthetic peptide derived from human CDO1: 101-200/200.

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°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: CDO1 (cysteine dioxygenase, type I) is a 200 amino acid protein that belongs to the cysteine dioxygenase family and is involved in organosulfur biosynthesis. Existing as a monomer and expressed at high levels in liver and placenta and at lower levels in brain, pancreas and heart, CDO1 functions as a dioxygenase that uses iron and zinc as cofactors to catalyze the conversion of L-cysteine and oxygen to 3-sulfinoalanine. Via its catalytic activity, CDO1 is involved in pyruvate-, sulfate- and taurine-related metabolic pathways and is a crucial regulator of cysteine concentrations within the cell. Human CDO1 shares 94% amino acid identity with its rat counterpart, suggesting a conserved role between species. The gene encoding CDO1 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome. PathwayOrganosulfur biosynthesis; taurine biosynthesis; hypotaurine from L-cysteine: step 1/2.

Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
ELISA (1:5000-10000)

Reactivity: (predicted: Human, Mouse, Rat, Rabbit, Sheep, Cow, Chicken, Dog, Horse)

Predicted MW.: 23 kDa

Subcellular Location: Cytoplasm

SELECTED CITATIONS

- **[IF=4.008]** Flavia G De Carvalho. et al. Taurine upregulates insulin signaling and mitochondrial metabolism in vitro, but not in adipocytes of obese women. Nutrition. 2021 Jul;:111430 WB ;Mouse. 10.1016/j.nut.2021.111430
- **[IF=2.6]** He Honghong. et al. Cloning, bioinformatics analysis and expression of the cysteine dioxygenase type 1 (CDO1) gene in domestic yak. FRONT VET SCI. 2024 Oct;11: WB,IHC ;Yak. 39493813