

CBR1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51049

Product Information

Application WB, ICC, IHC-P

Primary Accession
Reactivity
Human
Host
Clonality
Polyclonal
Calculated MW
30375

Additional Information

Gene ID 873

Other Names Carbonyl reductase [NADPH] 1, 15-hydroxyprostaglandin dehydrogenase

[NADP(+)], NADPH-dependent carbonyl reductase 1, Prostaglandin 9-ketoreductase, Prostaglandin-E(2) 9-reductase, CBR1, CBR, CRN

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the center

region of human CBR1. The exact sequence is proprietary.

Dilution WB~~1:1000 ICC~~N/A IHC-P~~N/A

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name CBR1 (HGNC:1548)

Synonyms CBR, CRN, SDR21C1

Function NADPH-dependent reductase with broad substrate specificity. Catalyzes the

reduction of a wide variety of carbonyl compounds including quinones, prostaglandins, menadione, plus various xenobiotics. Catalyzes the reduction

of the antitumor anthracyclines doxorubicin and daunorubicin to the

cardiotoxic compounds doxorubicinol and daunorubicinol (PubMed:15799708, PubMed:17344335, PubMed:17912391,

PubMed:<u>18449627</u>, PubMed:<u>18826943</u>, PubMed:<u>1921984</u>, PubMed:<u>7005231</u>). Can convert prostaglandin E to prostaglandin F2-alpha (By similarity). Can bind glutathione, which explains its higher affinity for glutathione- conjugated

substrates. Catalyzes the reduction of S-nitrosoglutathione

(PubMed:<u>17344335</u>, PubMed:<u>18826943</u>). In addition, participates in the

glucocorticoid metabolism by catalyzing the NADPH-dependent

cortisol/corticosterone into 20beta-dihydrocortisol (20b-DHF) or 20beta-corticosterone (20b-DHB), which are weak agonists of NR3C1 and NR3C2 in adipose tissue (PubMed: 28878267).

Cellular Location Cytoplasm.

Tissue Location Expressed in kidney (at protein level).

Background

NADPH-dependent reductase with broad substrate specificity. Catalyzes the reduction of a wide variety of carbonyl compounds including quinones, prostaglandins, menadione, plus various xenobiotics. Catalyzes the reduction of the antitumor anthracyclines doxorubicin and daunorubicin to the cardiotoxic compounds doxorubicinol and daunorubicinol. Can convert prostaglandin E2 to prostaglandin F2-alpha. Can bind glutathione, which explains its higher affinity for glutathione-conjugated substrates. Catalyzes the reduction of S-nitrosoglutathione.

References

Wermuth B.,et al.J. Biol. Chem. 263:16185-16188(1988). Forrest G.L.,et al.Biochim. Biophys. Acta 1048:149-155(1990). Forrest G.L.,et al.Mol. Pharmacol. 40:502-507(1991). Watanabe K.,et al.Genomics 52:95-100(1998). Terada T.,et al.Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases.

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