10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CBR1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52770

Product Information

Application	WB, ICC
Primary Accession	P16152
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	30375

Additional Information

Gene ID	873
Other Names	15 hydroxyprostaglandin dehydrogenase [NADP];15-hydroxyprostaglandin dehydrogenase [NADP];Carbonyl reductase [NADPH] 1;CBR 1;CBR1;CBR1_HUMAN;CRN;NADPH dependent carbonyl reductase 1;NADPH-dependent carbonyl reductase 1;Prostaglandin 9 ketoreductase; Prostaglandin 9-ketoreductase;Prostaglandin E(2) 9 reductase;Prostaglandin-E(2) 9-reductase;SDR21C1.
Dilution	WB~~1:1000 ICC~~1:100
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:18449627, PubMed:18826943, PubMed:1921984, PubMed:7005231). 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:17344335, PubMed:18826943). 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).

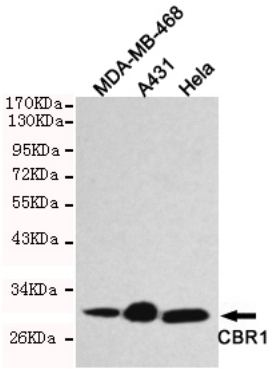
Background

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.

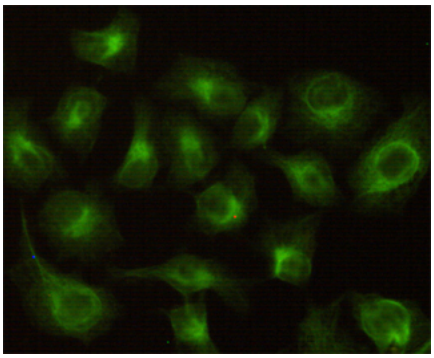
References

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.

Images



Western blot detection of CBR1 in Hela,A431 and MDA-MB-468 cell lysates using CBR1 mouse mAb (1:1000 diluted).Predicted band size:30KDa,Observed band size:30KDa.



Immunocytochemistry stain of Hela using CBR1 mouse mAb (1:100).