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

Carbonyl Reductase 1 Polyclonal Antibody

Catalog # AP68815

Product Information

Application	WB, IHC-P
Primary Accession	P16152
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30375

Additional Information

Gene ID	873
Other Names	CBR1; CBR; CRN; Carbonyl reductase [NADPH] 1; 15-hydroxyprostaglandin dehydrogenase [NADP(+)]; NADPH-dependent carbonyl reductase 1; Prostaglandin 9-ketoreductase; Prostaglandin-E(2) 9-reductase
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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).

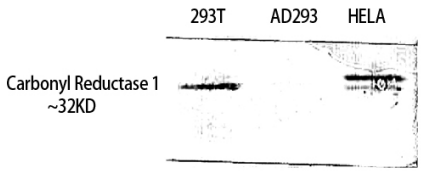
Cellular Location Cytoplasm.

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.

Images



Western Blot analysis of 293T HELA using Carbonyl Reductase 1 Polyclonal Antibody. Antibody was diluted at 1:1000