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DHRS4 Polyclonal Antibody

Catalog # AP69532

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q9BTZ2
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	29537

Additional Information

Gene ID	10901
Other Names	DHRS4; Dehydrogenase/reductase SDR family member 4; NADPH-dependent carbonyl reductase/NADP-retinol dehydrogenase; CR; PHCR; NADPH-dependent retinol dehydrogenase/reductase; NRDR; humNRDR; Peroxisomal short-chain alcohol dehydrogenase; PSCD
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 IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

Protein Information

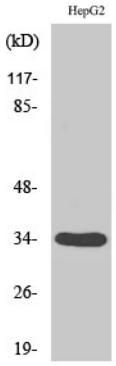
Name	DHRS4 (HGNC:16985)
Function	NADPH-dependent oxidoreductase which catalyzes the reduction of a variety of compounds bearing carbonyl groups including ketosteroids, alpha-dicarbonyl compounds, aldehydes, aromatic ketones and quinones (PubMed:18571493, PubMed:19056333). Reduces 3-ketosteroids and benzil into 3beta-hydroxysteroids and R-benzoin, respectively, in contrast to the stereoselectivity of non-primate DHRS4s which produce 3alpha-hydroxysteroids and S-benzoin (PubMed:19056333). Displays low activity toward all-trans-retinal and no activity toward 9-cis-retinal as compared to non-primate mammals (PubMed:18571493, PubMed:19056333). In the reverse reaction, catalyze the NAD-dependent oxidation of 3beta-hydroxysteroids and alcohol, but with much lower efficiency (PubMed:18571493, PubMed:19056333). Involved in the metabolism of 3beta-hydroxysteroids, isatin and xenobiotic carbonyl compounds (PubMed:18571493, PubMed:19056333).

Cellular Location	[Isoform 1]: Peroxisome Note=Isoform 4 is not peroxisomal.
Tissue Location	[Isoform 1]: Predominantly expressed in normal cervix (at protein level). [Isoform 5]: Expressed in a few neoplastic cervical tissues. [Isoform 8]: High expression in liver.

Background

Reduces all-trans-retinal and 9-cis retinal. Can also catalyze the oxidation of all-trans-retinol with NADP as co- factor, but with much lower efficiency. Reduces alkyl phenyl ketones and alpha-dicarbonyl compounds with aromatic rings, such as pyrimidine-4-aldehyde, 3-benzoylpyridine, 4-benzoylpyridine, menadione and 4-hexanoylpyridine. Has no activity towards aliphatic aldehydes and ketones (By similarity).

Images



Western Blot analysis of various cells using DHRS4 Polyclonal Antibody diluted at 1：2000