Product Name: DD3 Rabbit Polyclonal Antibody
Catalog #: APRab09858

Summary

Production Name	DD3 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	AKR1C3
Alternative Names	AKR1C3; DDH1; HSD17B5; KIAA0119; PGFS; Aldo-keto reductase family 1 member C3; 17-beta-hydroxysteroid dehydrogenase type 5; 17-beta-HSD 5; 3-alpha-HSD type II; brain; 3-alpha-hydroxysteroid dehydrogenase type 2; 3-alpha-HSD type 2; Chlordec
Gene ID	8644.0
SwissProt ID	P42330.The antiserum was produced against synthesized peptide derived from human AKR1C3. AA range:191-240

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:20000.
Molecular Weight	37kD

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Background

This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and the oxidation of 9alpha,11beta-PGF2 to PGD2. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011],catalytic activity:(5Z,13E)-(15S)-9-alpha,11-alpha,15-trihydroxyprosta-5,13-dienoate + NADP(+) = (5Z,13E)-(15S)-9-alpha,15-dihydroxy-11-oxoprosta-5,13-dienoate + NADPH.,catalytic activity:Androsterone + NAD(P)(+) = 5-alpha-androstane-3,17-dione + NAD(P)H.,catalytic activity:Indan-1-ol + NAD(P)(+) = indanone + NAD(P)H.,catalytic activity:Testosterone + NAD(+) = androst-4-ene-3,17-dione + NADH.,catalytic activity:Testosterone + NADP(+) = androst-4-ene-3,17-dione + NADPH.,catalytic activity:Trans-1,2-dihydrobenzene-1,2-diol + NADP(+) = catechol + NADPH.,enzyme regulation:Strongly inhibited by nonsteroidal anti-inflammatory drugs (NSAID) including flufenamic acid and indomethacin. Also inhibited by the flavinoid, rutin, and by selective serotonin inhibitors (SSRIs).,function:Catalyzes the conversion of aldehydes and ketones to alcohols. Catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ) and the oxidation of 9-alpha,11-beta-PGF2 to PGD2. Functions as a bi-directional 3-alpha-, 17-beta- and 20-alpha HSD. Can interconvert active androgens, estrogens and progestins with their cognate inactive metabolites. Preferentially transforms androstenedione (4-dione) to testosterone.,similarity:Belongs to the aldo/keto reductase family.,tissue specificity:Expressed in many tissues including adrenal gland, brain, kidney, liver, lung, mammary gland, placenta, small intestine, colon, spleen, prostate and testis. The dominant HSD in prostate and mammary gland. In the prostate, higher levels in epithelial cells than in stromal cells. In the brain, expressed in medulla, spinal cord, frontotemporal lobes, thalamus, subthalamic nuclei and amygdala. Weaker expression in the hippocampus, substantia nigra and caudate.,

Research Area

Steroid hormone biosynthesis;Arachidonic acid metabolism;Metabolism of xenobiotics by cytochrome P450;

Image Data

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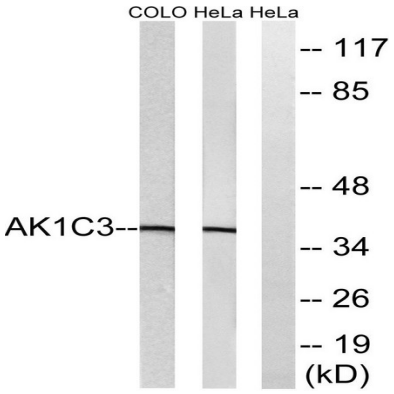

Western blot analysis of lysates from HeLa and COLO cells, using AKR1C3 Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.