SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-AKR1C3 antibody

Catalog Number: SL11401R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	AKR1C3
Immunogen:	KLH conjugated synthetic peptide derived from human AKR1C3: 161-270/323
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Rabbit (predicted:Human,Dog,Pig,Cow,Horse)
Predicted MW.:	36kDa
Subcellular Location:	cytoplasmic
Background:	DD3 is a unique enzyme that can specifically catalyze the dehydrogenation of trans-benzenedihydrodiol and trans-naphthalenedihydrodiol. Human liver contains isoforms of dihydrodiol dehydrogenase (DD1, DD2, DD3 and DD4), which belong to the aldo-oxo reductase/aldo-keto reductase (AKR) superfamily, have 20Alpha- or 3Alpha-hydroxysteroid dehydrogenase (HSD) activity. DD1 is also designated AKR1C1, DDH or DDH1 while DD2 also can be designated AKR1C2, dDD, BABP or DDH2. AKR1C3 and 3Alpha-HSD are alternate designations for DD3, while DD4 also can be called AKR1C4, CD or CHDR. DD1 and DD2 are 20Alpha-HSDs, whereas DD3 and DD4 are the 3Alpha-HSDs. The multiple human cytosolic dihydrodiol dehydrogenases are involved

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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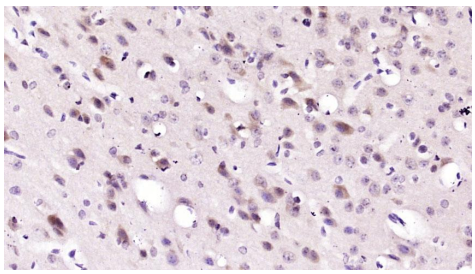
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	in the metabolism of xenobiotics, such as polycyclic aromatic hydrocarbons, pesticides and steroid hormones, and are responsible for the reduction of ketone-containing drugs by using NADH or NADPH as a cofactor. The 20Alpha-HSD catalyzes the reaction of progesterone to the inactive form 20Alpha-hydroxyprogesterone. The 3Alpha-HSD is a cytosolic, monomeric, NADPH-dependent oxidoreductase that reduces 3-keto-5-dihydrosteroids to their tetrahydro products. DD1 and DD2 are ubiquitously expressed, whereas DD4 mRNA is restricted to the liver. **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. **Subcellular Location:** Cytoplasm. **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. **Similarity:** Belongs to the aldo/keto reductase family. **Database links:** **Entrez Gene:** 8644 Human Omim: 603966 Human **SwissProt:** P42330 Human **Unigene:** 78183 Human

[VALIDATION IMAGES]



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Paraformaldehyde-fixed, paraffin embedded (Rabbit brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (AKR1C3) Polyclonal Antibody, Unconjugated (SL11401R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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