



# Recombinant Protein Technical Manual

## Recombinant Human AKR1C3 Protein (His Tag)

RPES2287

### Product Data:

**Product SKU:** RPES2287

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P42330

### Protein Information:

**Molecular Mass:** 37.8 kDa

**AP Molecular Mass:** 38 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** 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; Chlordecone Reductase Homolog HAKRb; Dihydrodiol Dehydrogenase 3; DD-3; DD3; Dihydrodiol Dehydrogenase Type I; HA1753; Indanol Dehydrogenase; Prostaglandin F Synthase; Testosterone 17-Beta-Dehydrogenase 5; Trans;2-Dihydrobenzene;2-Diol Dehydrogenase; AKR1C3; DDH1; HSD17B5; KIAA0119; PGFS



## Immunogen Information:

**Sequence:** Met 1-Tyr323

## Background:

AKR1C3, is an enzyme which belongs to the aldo/keto reductase family. It is expressed in many tissues including adrenal gland, brain, kidney, liver, lung, mammary gland, placenta, small intestine, colon, spleen, prostate and testis. AKR1C3 catalyzes the conversion of aldehydes and ketones to alcohols. It catalyzes the reduction of prostaglandin (PG) D<sub>2</sub>, PGH<sub>2</sub> and phenanthrenequinone (PQ) and the oxidation of 9- $\alpha$ ,11- $\beta$ -PGF<sub>2</sub> to PGD<sub>2</sub>, which functions as a bi-directional 3- $\alpha$ -, 17- $\beta$ - and 20- $\alpha$  HSD. It can interconvert active androgens, estrogens and progestins with their cognate inactive metabolites.