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Product Datasheet

Human Cytochrome P450 2D6 protein, His tag, Unconjugated GTX00199-PRO

Article Name	Human Cytochrome P450 2D6 protein, His tag, Unconjugated
Biozol Catalog Number	GTX00199-PRO
Supplier Catalog Number	GTX00199-pro
Alternative Catalog Number	GTX00199-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	1565
UniProt	P10635
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His-Tag, Leu236~Gln472 (NP_000097.3)

Application Notes

Cytochrome P450 2D6 (CYP2D6), a member of the cytochrome P450 mixed-function oxidase system, is one of the most important enzymes involved in the metabolism of xenobiotics in the body. In particular, CYP2D6 is responsible for the metabolism and elimination of approximately 25% of clinically used drugs, via the addition or removal of certain functional groups-specifically, hydroxylation, demethylation, and dealkylation. CYP2D6 is primarily expressed in the liver. It is also highly expressed in areas of the central nervous system, including the substantia nigra. This enzyme also metabolizes several endogenous substances, such as hydroxytryptamines, neurosteroids, and both m-tyramine and p-tyramine which CYP2D6 metabolizes into dopamine in the brain and liver. Besides, Cytochrome P450 Reductase (CPR) has been identified as an interactor of CYP2D6, thus a binding ELISA assay was conducted to detect the interaction of recombinant human VDR and recombinant human CPR. Briefly, CYP2D6 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to CPR-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-CYP2D6 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of CYP2D6 and CPR was in a dose dependent manner.