

## EZCyp™ Active human Cytochrome P450 2D6

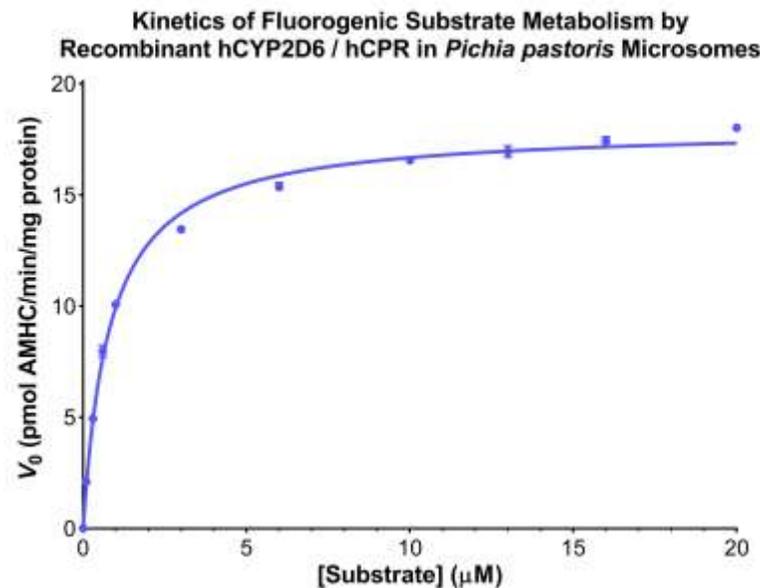
CATALOG #:	7873-10	10 mg
	7873-50	50 mg
ALTERNATIVE NAMES:	Cytochrome P450 2D6, Microsomal cytochrome P450 2D6, CYP2D6, Cyt2D6	
SOURCE:	<i>Pichia pastoris</i> co-expressing NADPH-Reductase	
FORM:	Dry powder	

**STORAGE:** Stable for 1 year as supplied. Store dry powder at -20°C. Reconstitute in 100 mM Phosphate buffer, pH 7.7. Not recommended to be stored as solution. If storing as solution, aliquot and store at -80°C. Avoid repeated freeze/thaw cycles and use aliquots within one month (the human CYP2D6 will lose approximately 10% activity per week when stored at -80°C). Thaw aliquots rapidly at 37°C and place on ice until use (thawed aliquots should be used within 4 hours).

**BACKGROUND:** Cytochrome P450 2D6 (CYP2D6, EC 1.14.14.1) is a member of the cytochrome P450 monooxidase (CYP) family of microsomal xenobiotic metabolism enzymes. CYPs are membrane-bound heme proteins responsible for Phase I biotransformation reactions, in which lipophilic drugs and other xenobiotic compounds are converted to more hydrophilic products to facilitate excretion from the body. CYP2D6 catalyzes oxidation of lipophilic bases with an aromatic ring and a nitrogen atom and is highly expressed in liver and brain tissue. The enzyme is responsible for metabolism of nearly 25% of all small molecule drugs commonly used by humans, particularly psychiatric drugs such as antidepressants, antipsychotics and stimulants. BioVision's EZCyp™ 2D6 is a permeabilized and stabilized dried yeast powder preparation containing recombinant human CYP2D6 and recombinant human P450 NADPH oxidoreductase (CPR, EC 1.6.2.4) co expressed in the same preparation.

### Advantages of the BioVision EZCyp™ 2D6:

- Co-expresses human CYP2D6 and human P450 oxidoreductase (hCPR) allowing easy reconstitution of the endogenous system
- Useful for all the applications as a baculosome system but more cost-effective
- Easy to handle dry powder
- Very stable in dry form and active in multiple buffers and solvents during long incubations
- Addition of NADP+ & Glucose-6-Phosphate are not essential (but will boost activity)
- After the reaction, the protein can be pelleted at relatively low speeds
- Clean HPLC profiles for easy metabolite ID and purification
- Highly controlled production process for lot-to-lot reproducibility



**Fig:** Activity of recombinant human CYP2D6 using the Cytochrome P450 2D6 (CYP2D6) Activity Assay Kit (Fluorometric) (K703-200).

### RELATED PRODUCTS:

- Cytochrome P450 2D6 (CYP2D6) Activity Assay Kit (Fluorometric) (K703-200)
- Cytochrome P450 2D6 (CYP2D6) Inhibitor Screening Kit (Fluorometric) (K704-200)
- Cytochrome P450 2D6, human recombinant (7870)
- Cytochrome P450 Antibody (Cat. No. 3084R-100)
- Cytochrome P450 Blocking Peptide (Cat. No. 3084RBP-50)
- Dextromethorphan (2912)
- EZCyp™ Active human Cytochrome P450 3A4 (7872)
- EZCyp™ Active human Cytochrome P450 2C19 (7874)
- EZCyp™ Active human Cytochrome P450 2C9 (7875)
- EZCyp™ Active human Cytochrome P450 1A2 (7876)
- Quinidine Sulfate dihydrate (2910)

**For Research Use Only! Not to be used in humans.**