CBR3 Protein, Human (His)

Cat. No.:	HY-P75605
Synonyms:	Carbonyl reductase [NADPH] 3; NADPH-dependent carbonyl reductase 3; CBR3
Species:	Human
Source:	E. coli
Accession:	O75828 (M1-W277)
Gene ID:	874
Molecular Weight:	Approximately 37 kDa

PROPERTIES

AA Sequence	M S S C S R V A L V T G A N R G I G L A I A R E L C R Q F S G D V V L T A R D V A R G Q A A V Q Q L Q A E G L S P R F H Q L D I D D L Q S I R A L R D F L R K E Y G G L N V L V N N A A V A F K S D D P M P F D I K A E M T L K T N F F A T R N M C N E L L P I M K P H G R V V N I S S L Q C L R A F E N C S E D L Q E R F H S E T L T E G D L V D L M K K F V E D T K N E V H E R E G W P N S P Y G V S K L G V T V L S R I L A R R L D E K R K A D R I L V N A C C P G P V K T D M D G K D S I R T V E E G A E T P V Y L A L L P P D A T E P Q G Q L V H D K V V Q N W
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris, 300 mM NaCl, 5% trehalose, 5% mannitol and 0.01% Tween80, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CBR3, a multifaceted enzyme, catalyzes the NADPH-dependent reduction of various carbonyl compounds, transforming them into their respective alcohols. Although it exhibits low NADPH-dependent oxidoreductase activity, CBR3 is particularly effective on orthoquinones, including 1,2-naphthoquinone, showcasing its potential role in protecting against the cytotoxic

effects of exogenous quinones. The enzyme is not limited to quinones, as it also acts on non-quinone compounds like isatin and the anticancer drug oracin. CBR3's preference for ortho-quinones over paraquinones highlights its substrate specificity. Notably, no endogenous substrate, aside from isatin, has been identified for CBR3, underscoring its versatility and potential contributions to cellular detoxification processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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