

Thioesterase superfamily member 2

Cat. No. CBCRY16 Lot. No. (See product label)

SPECIFICATION

Source	E.coli
Background	The crystallographic structure of recombinant hTHEM2, determined by the single-wavelength anomalous dispersion method at 2.3Å resolution, demonstrates that hTHEM2 indeed contains a hotdog-fold and forms a back-to-back tetramer as other hotdog proteins. Based on structural and sequence conservation, the thioesterase active site in hTHEM2 is predicted. The structure and substrate specificity are most similar to those of the bacterial phenylacetyl-CoA hydrolase. Asp65, located on the central alpha-helix of subunit B, was shown by site-directed mutagenesis to be essential to catalysis.
Protein Classification	Hydrolase
Structure Weight	132969.96 Da
Polymer	1
Molecule	Thioesterase superfamily member 2
Chain Length	176 amino acids
PDB ID	2F0X
MMDB ID	42159

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Method	X-Ray Diffraction
Resolution	2.3Å
Ligand Chemical Component	sulfate ion
Reference	Cheng, Z., Song, F., Shan, X., Wei, Z., Wang, Y., Dunaway-Mariano, D., Gong, W.(2006) Crystal structure of human thioesterase superfamily member 2 <i>Biochem.Biophys. Res.Commun.</i> 349: 172-177

GENE INFORMATION

Gene Name	THEM2
Synonyms	HT012; MGC4961; PNAS-27; 15 Kd protein; OTTHUMP00000016090; OTTHUMP00000039398; hypothalamus protein HT012
UniProt ID	Q9NPJ3
Gene ID	55856
Chromosome Location	6p22.2
Function	hydrolase activity

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