

## Product datasheet for **AP05203PU-N**

### FA2H Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	ELISA. Western Blot: 5-10 µg/ml. <i>Positive Control:</i> Pancreas.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide derived from Human fatty acid 2-hydrolase (FA2H) protein.
Specificity:	This antibody recognizes Fatty Acid 2-hydrolase (FA2H).
Formulation:	Phosphate buffered saline with 0.08% Sodium Azide as preservative. State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	The antibody can be shipped at ambient temperature. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	fatty acid 2-hydroxylase
Database Link:	<a href="#">Entrez Gene 79152 Human Q7L5A8</a>



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<b>Background:</b>	<p>2-Hydroxysphingolipids are a subset of sphingolipids containing 2-hydroxy fatty acids. The 2-hydroxylation occurs during de novo ceramide synthesis and is catalyzed by fatty acid 2-hydroxylase (also known as fatty acid alpha-hydroxylase). In mammals, 2-hydroxysphingolipids are present abundantly in brain because the major myelin lipids galactosylceramides and sulfatides contain 2-hydroxy fatty acids. Here we report identification and characterization of a human gene that encodes a fatty acid 2-hydroxylase. Data base searches revealed a human homologue of the yeast ceramide 2-hydroxylase gene (FAH1), which we named FA2H. The FA2H gene encodes a 372 - amino acid protein with 36% identity and 46% similarity to yeast Fah1p. The amino acid sequence indicates that FA2H protein contains an N-terminal cytochrome b5 domain and four potential transmembrane domains. FA2H also contains the iron-binding histidine motif conserved among membrane-bound desaturases/hydroxylases. COS7 cells expressing human FA2H contained 3-20-fold higher levels of 2-hydroxyceramides (C16, C18, C24, and C24:1) and 2-hydroxy fatty acids compared with control cells. Microsomal fractions prepared from transfected COS7 cells showed tetracosanoic acid 2-hydroxylase activities in an NADPH- and NADPH: cytochrome P-450 reductase-dependent manner. FA2H lacking the N-terminal cytochrome b5 domain had little activity.</p>
<b>Synonyms:</b>	FA2H, FAAH, Fatty acid 2-hydroxylase
<b>Note:</b>	<b>Predicted Molecular Weight:</b> 43 kDa