

## acyl-CoA (8-3)-desaturase

Cat. No. EXWM-1009 Lot. No. (See product label)

Introduction	
Description Synonyms	The enzyme introduces a cis double bond at carbon 5 of acyl-CoAs that contain a double bond at position 8. The enzymes from algae, mosses, mammals and the protozoan Leishmania major catalyse the desaturation of dihomo-γ-linoleate [(8Z,11Z,14Z)-icosa-8,11,14-trienoate] and (8Z,11Z,14Z,17Z)-icosa-8,11,14,17-tetraenoate to generate arachidonate and (5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaenoate, respectively. The enzyme contains a cytochrome b5 domain that acts as the direct electron donor to the desaturase active site and does not require an external cytochrome. cf. EC 1.14.19.37, acyl-CoA 5-desaturase.
Product Information	
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Form	Liquid or lyophilized powder
EC Number	EC 1.14.19.44
Reaction	(1) (8Z,11Z,14Z)-icosa-8,11,14-trienoyl-CoA + 2 ferrocytochrome b5 + O2 + 2 H+ = arachidonoyl-CoA + 2 ferricytochrome b5 + 2 H2O; (2) (8Z,11Z,14Z,17Z)-icosa- 8,11,14,17-tetraenoyl-CoA + 2 ferrocytochrome b5 + O2 + 2 H+ = (5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaenoyl-CoA + 2 ferricytochrome b5 + 2 H2O
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.
Storage and Shipping Information	

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.