Human CYP3A4 Antibody

Monoclonal Mouse IgG_1 Clone # 946002

Catalog Number: MAB9079

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CYP3A4 in Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 946002
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human CYP3A4 synthetic peptide Lys67-Pro80 Accession # P08684
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

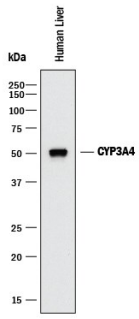
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Simple Western	20 µg/mL	Human Liver

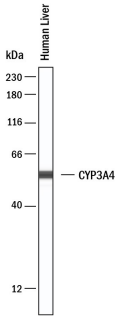
DATA

Western Blot



Detection of Human CYP3A4 by Western Blot. Western blot shows lysate of human liver tissue. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human CYP3A4 Monoclonal Antibody (Catalog # MAB9079) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # Catalog # HAF018). A specific band was detected for CYP3A4 at approximately 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human CYP3A4 by Simple Western™. Simple Western lane view shows lysates of Human Liver, loaded at 0.2 mg/mL. A specific band was detected for CYP3A4 at approximately 55 kDa (as indicated) using 20 µg/mL of Mouse Anti-Human CYP3A4 Monoclonal Antibody (Catalog # MAB9079). This experiment was conducted under reducing conditions and using the 12-230kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CYP3A4 (cytochrome P450, subfamily 3A, polypeptide 4) belongs to the cytochrome P450 superfamily of monooxygenases that catalyze reactions involved in both drug metabolism and the synthesis of cholesterol, steroids, and other lipid components. CYP3A4 is predominantly found in liver microsomes, but has also been detected in prostate, small and large intestine, bile duct, nasal mucosa, kidney and adrenal cortex. It is an extremely important enzyme for drug metabolism; CYP3A4 catalyzes phase I oxidation reactions in an estimated 60% of all clinically used drugs, promoting in most cases their clearance by excretion. CYP3A4 levels are induced by glucocorticoids and various xenobiotics, including drugs, pesticides and carcinogens. Human CYP3A4 is a 50 kDa single-pass membrane protein, 503 amino acids in length.

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