

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CYP7A1 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 946902
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human CYP7A1 synthetic peptide Accession # P22680
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 as a 0.2 µm filtered solution in PBS.

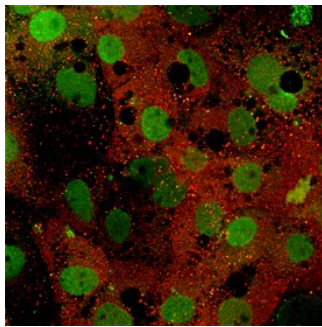
APPLICATIONS

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
Immunocytochemistry	1-25 µg/mL	See Below

DATA

Immunocytochemistry



CYP7A1 in Human Hepatocytes. CYP7A1 was detected in immersion fixed human hepatocytes induced with dexamethasone for 48 hours using Mouse Anti-Human CYP7A1 Polyclonal Antibody (Catalog # MAB9120) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (green). Specific staining was localized to endoplasmic reticula and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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. <ul style="list-style-type: none"> ● 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

CYP7A1 (cytochrome P450 7A1; also Cholesterol 7- α -monooxygenase) is a 504 aa oxidoreductase enzyme (SwissProt #: P22680). Human CYP7A1 shares 81% and 82% aa identity with mouse and rat CYP7A1, respectively. It is expressed in the liver where it catalyzes cholesterol metabolism, which is the rate-limiting step in bile acid synthesis. Disruption of CYP7A1 is associated with high plasma cholesterol levels leading to increased risk of coronary artery disease.