

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CYP7A1 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 946902
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human CYP7A1 synthetic peptide Accession # P22680
<b>Formulation</b>	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.

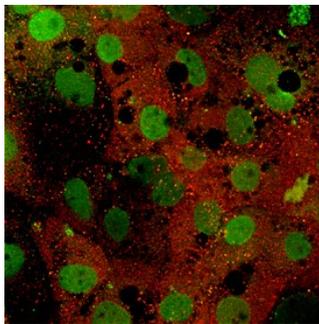
**APPLICATIONS**

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	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**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

CYP7A1 (cytochrome P450 7A1; also Cholesterol 7- $\alpha$ -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.