**Monoclonal Anti-human HNF4α/NR2A1 Antibody**

**Description**
Hepatocyte Nuclear Factor 4 alpha (HNF4, HNF4α; NR2A1) is a member of the Orphan Nuclear Receptor family. HNF4α is expressed in the liver, kidney, intestine and pancreas. Mutation of HNF4α in humans has been associated with Maturity-Onset Diabetes of the Young type 1 (MODY1). HNF4 binds to DNA as an exclusive homodimer. The HNF4α gene is alternatively spliced and may generate up to nine different isoforms, HNF4α1 through HNF4α9.

**Preparation**
Produced in BALB/c mouse ascites inoculated with a hybridoma of spleen cells of a BALB/c mouse immunized with synthetic peptide human HNF4α (amino acids 1-16) and mouse myeloma cells (NS-1). The IgG fraction of the ascites fluid was purified by ammonium sulfate fractionation.

**Formulation**
A liquid formulation in physiologic saline with 0.1% NaN₃.

**Storage**
This antibody is stable for greater than six months when held at -20 °C in a manual defrost freezer or at -70 °C. Upon thawing, the antibody can be stored at 2-8 °C for at least 1 month without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

**Specificity**
This antibody specifically recognizes human HNF4α (isoforms 7-9) and cross-reacts with mouse and rat HNF4α (isoforms 7-9). Not yet tested in other species.

**Applications**
- **Western Blot** - This antibody can be used at 1 μg/mL under reducing conditions and at 3 μg/mL under non-reducing conditions with the appropriate secondary reagents to detect human HNF4α.
- **Direct ELISA** - This antibody can be used at 3 μg/mL with the appropriate secondary reagents to detect human HNF4α.
- **Immunohistochemistry** - This antibody can be used at 10 - 20 μg/mL with the appropriate secondary reagents to detect human HNF4α.
- **Immunoprecipitation** - Optimal dilutions should be determined by each laboratory.

**Caution:** Sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large amounts of water during disposal.