

## DESCRIPTION

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human HNF-3 $\beta$ /FoxA2 in direct ELISAs and Western blots.  |
| <b>Source</b>             | Polyclonal Goat IgG   |
| <b>Purification</b>       | Antigen Affinity-purified   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human HNF-3 $\beta$ /FoxA2 Met242-Ser457<br>Accession # Q9Y261  |
| <b>Formulation</b>        | Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 $\mu$ m filtered solution in PBS. |

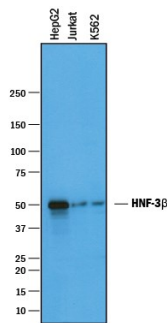
## APPLICATIONS

**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    |
|---|-------------------------------------|-----------|
| <b>Western Blot</b>                         | 1 $\mu$ g/mL                        | See Below |
| <b>Chromatin Immunoprecipitation (ChIP)</b> | 5 $\mu$ g/5 x 10 <sup>6</sup> cells | See Below |
| <b>Immunocytochemistry</b>                  | 5-15 $\mu$ g/mL                     | See Below |
| <b>Immunohistochemistry</b>                 | 3-15 $\mu$ g/mL                     | See Below |

## DATA

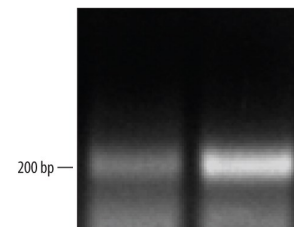
### Western Blot



**Detection of Human HNF-3 $\beta$ /FoxA2 by Western Blot.** Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, Jurkat human acute T cell leukemia cell line, and K562 human chronic myelogenous leukemia cell line. PVDF membrane was probed with 1  $\mu$ g/mL of Goat Anti-Human HNF-3 $\beta$ /FoxA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2400) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for HNF-3 $\beta$ /FoxA2 at approximately 48 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

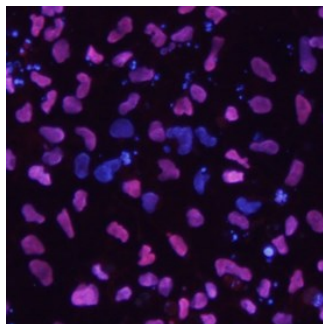
### Chromatin Immunoprecipitation (ChIP)

| Mouse Spenocytes |   |                    |
|------------------|---|--------------------|
| -                | + | Anti-HNF-3 $\beta$ |
| +                | - | Goat IgG           |



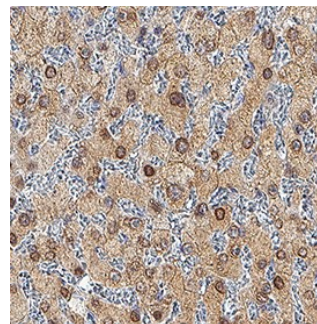
**Detection of HNF-3 $\beta$ /FoxA2-regulated Genes by Chromatin Immunoprecipitation.** Mouse splenocytes were fixed using formaldehyde, resuspended in lysis buffer, and sonicated to shear chromatin. HNF-3 $\beta$ /FoxA2/DNA complexes were immunoprecipitated using 5  $\mu$ g Goat Anti-Human HNF-3 $\beta$ /FoxA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2400) or control antibody (Catalog # AB-108-C) for 15 minutes in an ultrasonic bath, followed by Biotinylated Anti-Goat IgG Secondary Antibody (Catalog # BAF109). Immunocomplexes were captured using 50  $\mu$ L of MagCelect Streptavidin Ferrofluid (Catalog # MAG999) and DNA was purified using chelating resin solution. The *E-RABP* promoter was detected by standard PCR.

### Immunocytochemistry



**HNF-3 $\beta$ /FoxA2 in Endoderm Differentiated BG01V Human Stem Cells.** HNF-3 $\beta$ /FoxA2 was detected in immersion fixed endoderm differentiated BG01V human embryonic stem cells using 10  $\mu$ g/mL Goat Anti-Human HNF-3 $\beta$ /FoxA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2400) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**HNF-3 $\beta$ /FoxA2 in Human Liver.** HNF-3 $\beta$ /FoxA2 was detected in immersion fixed paraffin-embedded sections of human liver using Goat Anti-Human HNF-3 $\beta$ /FoxA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2400) at 3  $\mu$ g/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.2 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.<br>*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

HNF-3 $\beta$ , also known as FoxA2, is a member of the forkhead class of DNA-binding proteins. It is a transcriptional activator for liver-specific transcripts such as albumin and transthyretin. Similar family members play roles in the differentiation of the pancreas and liver.