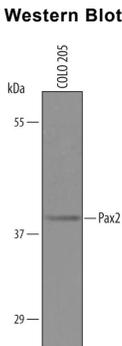
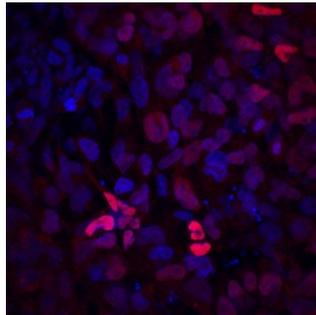


| DESCRIPTION               |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human  |
| <b>Specificity</b>        | Detects human Pax2 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Pax3, rhPax4, rhPax5, rhPax6, and rhPax7 is observed. |
| <b>Source</b>             | Polyclonal Goat IgG  |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Pax2<br>Asp229-Pro363<br>Accession # Q02962  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*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    |
|----------------------------|---------------------------|-----------|
| <b>Western Blot</b>        | 1 µg/mL                   | See Below |
| <b>Immunocytochemistry</b> | 5-15 µg/mL                | See Below |

| DATA   |   |
|--|---|
| <p><b>Western Blot</b></p>  <p><b>Detection of Human Pax2 by Western Blot.</b> Western blot shows lysates of COLO 205 human colorectal adenocarcinoma cell line. PVDF Membrane was probed with 1 µg/mL of Goat Anti-Human Pax2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3364) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Pax2 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p> | <p><b>Immunocytochemistry</b></p>  <p><b>Pax2 in BG01V Human Embryonic Stem Cells.</b> Pax2 was detected in immersion fixed BG01V human embryonic stem cells differentiated into the early otic lineage using Goat Anti-Human Pax2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3364) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for <a href="#">Fluorescent ICC Staining of Stem Cells on Coverslips</a>.</p> |

| 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**  
Pax2 is a 40-45 kDa protein belonging to the small but developmentally important family of transcription regulators. Human Pax2 is a 416 amino acid (aa) residue protein with an N-terminal 128 aa DNA-binding paired box domain, a centrally-located octapeptide motif and a C-terminal truncated homeodomain. Based on the presence of the structural domains, Pax2 belongs to subgroup 2 in the Pax family. Pax2 is important for stem cell survival and lineage commitment during development. Pax2 is also expressed in various carcinomas where it seems to mediate anti-apoptotic functions. At least five splice isoforms of human Pax2 have been described within the region used as immunogen (shared by all isoforms). Human and mouse Pax2 share 98% aa sequence identity.