**CDX2 + CK7**

Prediluted Multiplex Cocktail (4-Step)

Control Number: 902-367DS-090817

**Catalog Number:** APR 367 DS AA, H, L

**Description:** 6.0, 25, 100 ml, prediluted

**Diluent:** Ready-to-use

**Diluent:** N/A

**Intended Use:**
For Research Use Only. Not for use in diagnostic procedures.

**Summary and Explanation:**
CDX2 is a homeobox gene that encodes an intestine-specific transcription factor. Studies have shown it is expressed in the nuclei of epithelial cells throughout the intestine, from duodenum to rectum (3). The CDX2 protein is expressed in primary and metastatic colorectal carcinomas and has also been demonstrated in the intestinal metaplasia of the stomach and intestinal-type gastric cancer, while it is not expressed in the normal gastric mucosa (1). Studies have shown that CDX2 is a superior marker compared to CK20 and can be substituted in a panel of antibodies (2).

Cytokeratin 7 is a basic cytokerin and is expressed in epithelial cells of ovary, lung and breast, but not in the colon or gastrointestinal tract (2). It is often used in conjunction with Cytokeratin 20 in distinguishing pulmonary ovarian and breast carcinomas (CK7 +) from colon carcinomas (CK7-).

This Multiplex cocktail of CDX2 and CK7 can be used to distinguish colon cancers from breast, lung and ovarian cancers. CDX-2 will stain the nuclei brown and CK7 will stain target antigens red.

**Principle of Multiplex Staining:**
A Multiplex IHC stain can be accomplished in four major steps. The initial step consists of an antibody cocktail with at least one mouse and one rabbit antibody. This cocktail is applied to the tissue and will bind with two or more target antigens. A multiplex detection cocktail of horseradish peroxidase (HRP) and alkaline phosphatase (AP) conjugated secondary antibodies is applied. The third step consists of the addition of DAB-Substrate that binds to the HRP and produces a brown chromogenic reaction product. The fourth step consists of a Fast Red-Substrate that binds to the AP and produces a red chromogenic reaction product.

**Source:** Mouse Monoclonal and Rabbit Monoclonal

**Species Reactivity:** Human; others not tested

**Clone:** CDX2-88 + BC1

**Isotype:** IgG1 and Rabbit IgG

**Epitope/Antigen:** CDX2 and CK7

**Cellular Localization:**
CDX2: (nuclear); brown
CK7: (cytoplasmic); red

**Positive Control:** Colon, breast, ovary and lung cancers

**Known Applications:**
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

**Supplied As:** Buffer with protein carrier and preservative

**Storage and Stability:**
Store at 2ºC to 8ºC. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

**Staining Protocol Recommendations Cont’d:**

**Peroxide Block:**
Block for 5 minutes with Biocare's Peroxidazed 1.
References: