

## p40

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 04P A,B,C	0.1,0.5,1.0ml	1:100
Prediluted	GB 04P AA	6.0 ml	Ready to use

### PRODUCT DESCRIPTION -

The mouse monoclonal antibody p40 [BC28] may find value in situations where p63 has historically been employed since it recognises an epitope specific to the p40 protein. As of right now, p63 [4A4] is a commonly utilised indicator of the basal epithelium in a healthy prostate; prostatic cancer usually does not exhibit this expression. According to a study, normal prostate glands and prostatic intraepithelial neoplasia (PIN) exhibit p40 (M) antibody staining comparable to p63, however prostate cancer does not exhibit p40 staining. Both the p40 and p63 proteins are recognised by p63 [4A4]. Unlike the rabbit polyclonal p40 antibody, macrophages are not stained by p40 [BC28].

### INTENDED USE -

Intended for In Vitro Diagnostic Applications

p40 [BC28] is a mouse monoclonal antibody that is intended for professional laboratory use after the initial diagnosis of tumor has been made by conventional histopathology using nonimmunologic histochemical stains, in the qualitative identification of p40 [BC28] protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist as an aid in making any other clinical determinations.

### SUMMARY AND EXPLANATION -

The mouse monoclonal antibody p40 [BC28] may be useful in situations where p63 has historically been employed since it recognises an epitope specific to the p40 protein. Up until now, p63 [4A4] has been widely utilised to identify the basal epithelium in a healthy prostate; nevertheless, prostatic cancer typically does not express this gene.

According to studies, prostatic intraepithelial neoplasia (PIN) and normal prostate glands both stain with p40, however prostate cancer does not stain with p40.

Both the p40 and p63 proteins are recognised by p63 [4A4]. p40 (M) [BC28] detects a p40-specific epitope that may lead to sensitivity comparable to p63, along with enhanced staining quality and specificity. p40 (M) [BC28], as opposed to the rabbit polyclonal p40 antibody, does not stain macrophages.

#### **PRINCIPLE OF PROCEDURE -**

This antibody product may be used as the primary antibody in immunohistochemistry testing of formalin-fixed, paraffin-embedded tissue sections. In general, immunohistochemical (IHC) staining techniques allow for the visualization of antigens via the sequential application of a specific antibody to the antigen (primary antibody), a secondary antibody to the primary antibody (optional link antibody/probe), an enzyme complex and a chromogenic substrate with interposed washing steps. The enzymatic activation of the chromogen results in a visible reaction product at the antigen site. The specimen may then be counterstained, and cover slipped. Results are interpreted using a light microscope and aid in the differential diagnosis of pathophysiological processes, which may or may not be associated with a particular antigen.

**SOURCE** -: Mouse monoclonal

**SPECIES REACTIVITY** - Human; other species not tested.

**CLONE**- BC28

**ISOTYPE**- IgG1

**PROTEIN CONCENTRATION** - ~10 mg/ml. Call for lot specific Ig concentration

**EPITOPE/ANTIGEN** - amino acids 5-17 of p40

**CELLULAR LOCALISATION** - Nuclear

**POSITIVE TISSUE CONTROL** - Normal prostate or prostate cancer containing normal glands

**KNOWN APPLICATIONS**- Immunohistochemistry

30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

**SUPPLIED AS** - Buffer with protein carrier and preservative

### **STORAGE AND STABILITY -**

Store at 2°C to 8°C. 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 2°C to 8°C

### **Materials required but not provided -**

- 1) Positive tissue control - Normal prostate or prostate cancer containing normal glands
- 2) Negative control tissue (internal or external)
- 3) Microscope slides and coverslips
- 4) Staining jars or baths
- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10) Detection system
- 11) Chromogen
- 12) Wash buffer
- 13) Hematoxylin
- 14) Antibody diluents
- 15) Peroxide block
- 16) Light microscope
- 17) Mounting medium

### **LIMITATIONS -**

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.