



## EGFR

### *IHC of EGFR on an FFPE Colon Carcinoma Tissue*

**Description** Epidermal Growth Factor Receptor (EGFR) is the receptor for epidermal growth factor (EGF). It is a member of the ErbB family receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER-2 neu (ErbB-2), HER-3 (ErbB-3) and HER-4 (ErbB-4). Mutations affecting EGFR expression or activity could result in cancer.

Mutations involving EGFR could lead to its constant activation, which could result in uncontrolled cell division – a predisposition for cancer. Consequently, mutations of EGFR have been identified in several types of cancer, and EGFR is the target of an expanding class of anticancer therapies. EGFR is overexpressed in tumors of the breast, brain, bladder, lung, stomach, head, neck, esophagus, cervix, vulva, ovary, and endometrium. It is predominantly present in Squamous Cell Carcinomas.

<b>Antibody Type</b>	Mouse Monoclonal	<b>Clone</b>	31G7
<b>Isotype</b>	IgG1	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Cell Membrane	<b>Control</b>	Skin, Placenta, Squamous Cell Carcinoma
<b>Storage</b>	Store at 2°-8°C	<b>Stability</b>	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).

**Presentation** EGFR is a Mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

<b>Availability</b>	<b>Catalog No.</b>	<b>Antibody Type</b>	<b>Dilution</b>	<b>Volume/QTY</b>
	BSB 5470	Prediluted	Ready-To-Use	3.0 ml
	BSB 5471	Prediluted	Ready-To-Use	7.0 ml
	BSB 5472	Prediluted	Ready-To-Use	15.0 ml
	BSB 5473	Concentrated	1:50-1:200	0.1 ml
	BSB 5474	Concentrated	1:50-1:200	0.5 ml
	BSB 5475	Concentrated	1:50-1:200	1.0 ml
	BSB 5476	Control Slides		5

**Note:** For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

**References** N/A

**Protocol** Suggested protocol on reverse

## Recommended Immunohistochemical Protocol

### Pretreatment with Enzyme Digestion

1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
  2. Air dry for 2 hours at 58° C.
  3. Deparaffinize, dehydrate and rehydrate tissues.
  4. Subject tissues to enzymatic digestion with **ImmunoDNA Digestor** (BSB 0108 – BSB 0112) or similar product (Proteinase K) using the following protocol:
    - a. Pre-warm the **ImmunoDNA Digestor** solution to room temperature
    - b. Incubate tissue sections with the **ImmunoDNA Digestor** solution for 10 minutes at room temperature or for 5 minutes at 37° C.
- NOTE: Other enzyme treatments may reduce or eliminate the intensity of this antibody. Heat induced epitope retrieval (HIER) yields poor results with this antibody.**
5. Wash slides with IHC wash buffer or DI water.
  6. Continue IHC staining protocol.

## Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

