Rev.: 2019-9-18

| Estrogen Receptor (ER) α               |       |                                    |
|--|-------|------------------------------------|
| Recombinant Rabbit Monoclonal Antibody |       | Catalog# BX50135                   |
| Product Datasheet                      |       | Clone# BP6139                      |
| Predicted Molecular Wt:                | 66kDa | Purity: ProA affinity purified IgG |
| Species Cross-reactivity:              | Human | Form: Liquid                       |
| Applications:                          | IHC-P | Swissprot ID: P03372               |

#### **Background:**

Estrogen receptor (ER) belongs to the steroid receptor superfamily of nuclear receptors. It is a protein with 553 amino acids. The receptor molecule has three domains, i.e. the central DNA-binding domain, the hormone-binding domain at the C-terminal, and the transcription-activating domain at the N-terminal. ER mediates regulatory functions of female sex steroids, mainly 17 (E2), on growth, differentiation and function in several target tissues, including female and male reproductive tract, mammary gland, and skeletal and cardiovascular systems.

Studies have shown ER  $\alpha$  is present in the nuclei of epithelial cells in normal breast and endometrial tissues, as well as a subset of breast carcinomas.

Studies with immunohistochemical assay show that positive steroid hormone status has predicted favourable overall, survival, independently of hormonal treatment. Secondly, ER  $\alpha$  can be used as a tumour marker, preferentially in combination with an antibody to progesterone receptor, e.g., in the classification of adenocarcinomas.

# Subcellular location:

Nucleus

### **Recommended method:**

Heat induced epitope retrieval with Tris-EDTA buffer (pH 9.0), primary antibody incubate at RT (18°C-25°C) for 30 minutes.

#### Immunogen:

Synthetic peptide corresponding to ER alpha residues within aa495-595 of ER alpha was used as an immunogen.

#### **Storage Buffer:**

PBS 59%, Sodium azide 0.01%, Glycerol 40%, BSA 0.05%.

# Storage conditions:

-20°C

#### Storage instructions:

Shipped on blue ice. Upon delivery, aliquot, and store at -20°C. Avoid freeze / thaw cycles.

#### **Recommended Dilutions:**

IHC-P: 1:100-1:200

# **Background References:**

1. Stein B, et.al, Mol Cell Biol. 1995 Sep;15(9):4971-9.

2. Saville B, et.al, J Biol Chem. 2000 Feb 25;275(8):5379-87.

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of breast carcinoma tissue labelling Estrogen Receptor (ER) α with BP6139. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0

for Product QC'd by:

For research use only. Not for use in diagnostic or therapeutic applications.