

BACKGROUND

c-Kit is a receptor tyrosine kinase that binds stem cell factor (SCF). Structurally, c-Kit contains five immunoglobulin-like domains extracellularly and a catalytic domain divided into two regions by a 77 amino acid insert intracellularly. c-Kit is expressed in hematopoietic stem and progenitor cells and in several non-hematopoietic tissues. Moreover, human and mouse embryonic stem cells express Kit transcripts.¹ Signaling by SCF and Kit, its receptor, plays important roles in gametogenesis, hematopoiesis, mast cell development and function, and melanogenesis. Downstream of c-Kit, multiple signal transduction components are activated, including phosphatidylinositol-3-kinase, Src family members, the JAK/STAT pathway and the Ras-Raf-MAP kinase cascade.² c-Kit gene mutations and overexpression have been shown in a number of different neoplasms, particularly in mastocytosis and gastrointestinal stromal tumours (GIST). c-Kit is a drug target for these tumor treatments. Gleevec has been successfully used for this purpose.³

References:

1. Edling, C.E. & Hallberg, B.: Int. J. Biochem, cell Biol. 39:1995-8, 2007
2. Loveland, K. L. & Schlatt, S.: J. Endocrinol. 153: 337-44, 1997.
3. Miettinen, M. & Lasota, J.: Arch. Path. Lab. Med. 130: 1466-78, 2006.

TECHNICAL INFORMATION

Source: Anti-c-Kit is a mouse monoclonal antibody raised against NSO-expressed recombinant human c-Kit protein.

Specificity and Sensitivity: Anti-c-Kit antibody specifically detects endogenous human & mouse c-Kit proteins. Anti-c-Kit does not cross-react with other PDGFR family members.

Storage Buffer: 0.1 M PBS (pH 7.2), 0.1% glycine, 0.1% NaN₃, 0.1% BSA, 50% glycerol.

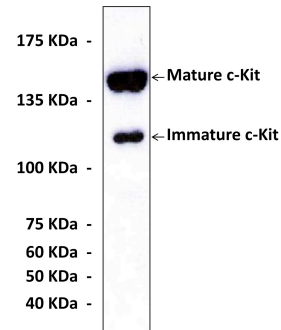
Storage: Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



Specific detection of c-Kit proteins in MO7e cell lysates by Western blot analysis using c-Kit Monoclonal Antibody (8H18).

