Catalog No. LF-MA0211

MONOCLONAL ANTIBODY

Anti-HPK1(2A1)

Background : Hematopoietic progenitor kinase 1 (HPK1) is a 97 kDa serine/threonine protein kinase expressed only in hematopoietic cells and tissues. HPK1 is comprosed of a STE20-like kinase domain in its N-terminus, four proline-rich motifs (-P-x-x-P-), a caspase cleavage site, and a distal C-terminal Citron homology domain. The proline-rich motifs are capable of binding proteins that contain SH3 domains.

HPK1 is involved in many cellular signaling cascades that include MAPK signaling, antigen receptor signaling, apoptosis, growth factor signaling, and cytokine signaling. HPK1 binds many adaptor proteins including members of the Grb2 family, Nck family, Crk family, SLP-76 family, and actin-binding adaptors. HPK1 contains 13 potential tyrosine phosphorylation residues, some of which may be phosphorylated by ZAP-70, which provide potential docking sites for SH2 domains containing proteins.

HPK1 is activated by both EGF and PDGF stimulation where adaptor proteins are involved in mediating the localization of effector molecules to cell surface receptors.

Activation-induced cell death (AICD)-resistant T cells contain full-length HPK1, while AICD-sensitive T cells have HPK1-C (cleaved form). HPK1 might be a possible molecular switch used to discriminate between the extrinsic pathway involving death receptors and the intrinsic pathway determined by the ratio between anti- and pro-apoptotic Bcl-2 family members.

Immunogen : Recombinant human protein purified from *E.coli* (His/ABD-HPK1 1~150a.a.)

Host : Mouse **Size :** 100ul

Clone number : 2A1

Isotype : IgG1, λ

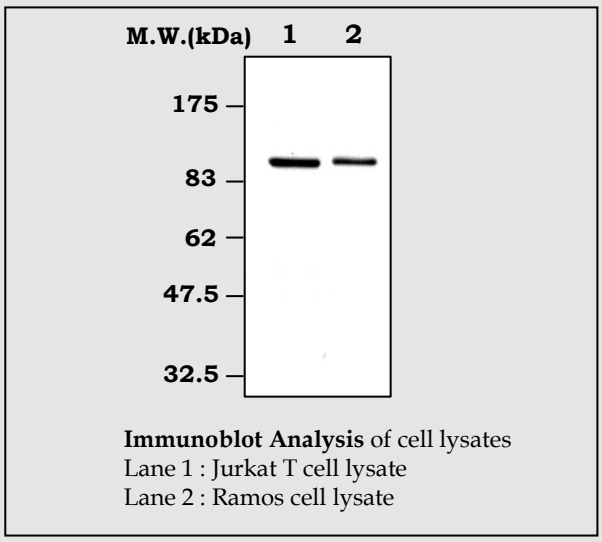
Composition : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Positive control : Jurkat T cell lysate

Storage : Store for 1 year at -20°C from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	-	-



Immunoblot Analysis of cell lysates
Lane 1 : Jurkat T cell lysate
Lane 2 : Ramos cell lysate

Applications :
Western Blotting (1:5,000)
Immunoprecipitation (3u1/400ul lysates)

Background Reference :

1) Boomer JS and Tan TH, 2005, J Cell Biochem. 95(1):34-44
2) Schulze-Luehrmann J et al., 2002, Blood. 100(3):954-960
3) Ling P et al., 2001, J Biol Chem. 276(22):18908-18914

Gentaur Molecular Products
Voortstraat 49
1910 Kampenhout, Belgium
http://www.gentaur-worldwide.com