Catalog No. LF-MA0197

MONOCLONAL ANTIBODY

Anti-ZAP 70 (49B4)

Background : Zeta-chain associated protein kinase, ZAP70, is a 70 kDa member of the Syk family kinase predominantly involved in T cell receptor (TCR) signaling. It is structurally homologous to Syk, a PTK that is involved in proximal BCR signaling. ZAP-70 is a key signaling molecule in T cell activation and also plays a role in apoptosis and cell migration.
SYK family tyrosine kinases contain a C-terminal kinase domain and tandem N-terminal SH2 domains that bind phosphorylated ITAMs (immunoreceptor tyrosine-based activation motif). Linker region that contains multiple tyrosines separates the SH2 domains from the kinase domain. Phosphorylated tyrosines act as docking sites for phospholipase Cγ1 (PLCγ1).
ZAP-70 and Syk are functionally homologous in antigen receptor signaling. Expression of ZAP-70 in Syk− B cells reconstitutes SCR function. Reconstitution requires the presence of functional Src homology 2 (SH2) and catalytic domains of ZAP-70.
Expression of ZAP-70 is an important negative prognostic factor in chronic lymphocytic leukemia (CLL) with more rapid disease progression and shorter survival.

Immunogen : Recombinant human protein purified from *E.coli* (ABD-ZAP70)

Host : Mouse

Clone number : 49B4

Isotype : IgG1, k

Size : 100 µℓ

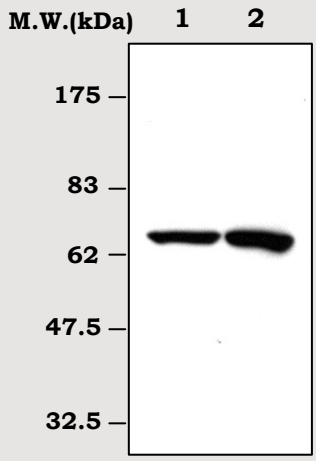
Compositon : Hepes with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol

Positive control : Jurkat T cell lysate

Storage : Store for 1 year at –20℃ from date of shipment

Species cross reactivity

Human	Mouse	Rat
+	-	-



Immunoblot Analysis of cell lysates
Lane 1 : Jurkat T cell lysate
Lane 2 : Molt-4 cell lysate

Applications :
ELISA
Western blotting (1: 10,000)
Immunoprecipitation (2 µℓ/400 µℓ cell lysates)

Background Reference :
1) Gobessi S. et al., 2007, Blood. 109:2032-2039
2) Orchard J.A. et al., 2004, Lancet. 363:105-111
3) Kong G.H. et al., 1995, Immunity. 2:485-492

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