

## Technical Data Sheet

### Purified Anti-ILK

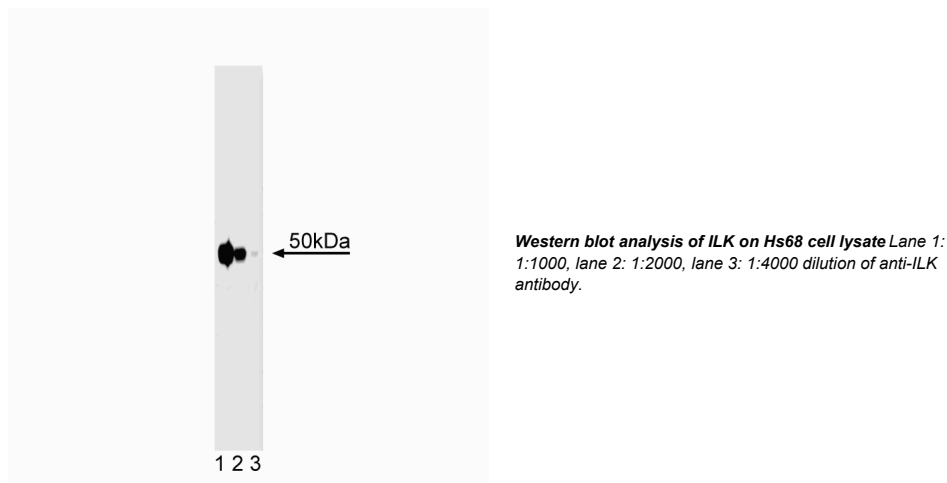
#### Product Information

<b>Material Number:</b>	<b>611802</b>
<b>Size:</b>	50 µg
<b>Concentration:</b>	250 µg/ml
<b>Clone:</b>	3/ILK
<b>Immunogen:</b>	Human ILK aa. 326-452
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Chicken, Dog, Mouse, Rat
<b>Target MW:</b>	50 kDa
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

#### Description

Integrins are transmembrane receptors that mediate cell-cell or cell-matrix adhesion. All integrins are heterodimers composed of  $\alpha$  and  $\beta$  subunits, which interact with extracellular matrix and cytoskeletal proteins. Signal transduction through integrin receptors may be regulated by integrin-linked kinase (ILK). ILK is a widely expressed Ser/Thr protein kinase that contains four ankyrin-like repeats in the N-terminal region, a phosphoinositide lipid-binding motif at amino acids 180-212, and an integrin binding site at amino acids 293-451. The ankyrin repeats interact with a LIM domain-only protein called PINCH that also binds the adaptor protein, Nck-2. This interaction implicates ILK in growth factor receptor pathways. In addition, the interaction of ILK with the cytoplasmic domains of integrin  $\beta 1$  and  $\beta 3$  subunits and localization of ILK to focal adhesion plaques suggests a role for ILK in the regulation of cell adhesion. Interestingly, overexpression of ILK in epithelial cells inhibits cell adhesion and stimulates cell cycle progression and tumorigenicity. Thus, ILK regulates signal transduction in many different cell signaling pathways.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



#### Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

#### BD Biosciences

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## Application Notes

### Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

## Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

Delcommenne M, Tan C, Gray V, Rue L, Woodgett J, Dedhar S. Phosphoinositide-3-OH kinase-dependent regulation of glycogen synthase kinase 3 and protein kinase B/AKT by the integrin-linked kinase. *Proc Natl Acad Sci U S A*. 1998; 95(19):11211-11216.(Biology)

Hannigan GE, Leung-Hagsteejin C, Fitz-Gibbon L, et al. Regulation of cell adhesion and anchorage-dependent growth by a new beta 1-integrin-linked protein kinase. *Nature*. 1996; 379(6560):91-96.(Biology)

Nikolopoulos SN, Turner CE. Integrin-linked kinase (ILK) binding to paxillin LD1 motif regulates ILK localization to focal adhesions. *J Biol Chem*. 2001; 276(26):23499-23505.(Clone-specific: Immunofluorescence, Western blot)

Persad S, Attwell S, Gray V, et al. Inhibition of integrin-linked kinase (ILK) suppresses activation of protein kinase B/Akt and induces cell cycle arrest and apoptosis of PTEN-mutant prostate cancer cells. *Proc Natl Acad Sci U S A*. 2000; 97(7):3207-3712.(Biology)