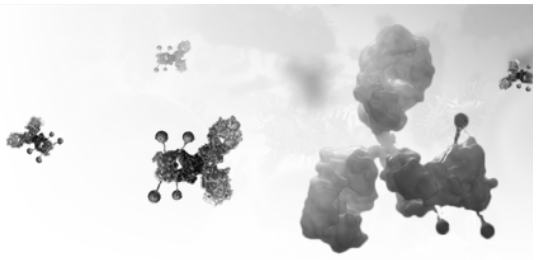

Mouse anti-Human LIG4 monoclonal antibody, clone 3E3 (CABT-B10565)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	LIG4 (AAH37491, 802 a.a. ~ 911 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Isotype	IgG2a
Source/Host	Mouse
Species Reactivity	Human
Clone	3E3
Conjugate	Unconjugated
Applications	WB,sELISA,ELISA
Sequence Similarities	RYSWDCSPLSMFRRHTVYLDSYAVINDLSTKNEGTRLAIKALELRFHGAKVVSCLAEGVS HVIIGEDHSRVADFKAFRRTFKRKFKILKESWVTDSIDKCELQEENQYLI
Format	Liquid
Size	100 µg
Buffer	In 1x PBS, pH 7.2
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

BACKGROUND

Introduction	The protein encoded by this gene is a DNA ligase that joins single-strand breaks in a double-stranded polydeoxynucleotide in an ATP-dependent reaction. This protein is essential for V(D)J

45-1 Ramsey Road, Shirley, NY 11967, USA
Email: info@creative-diagnostics.com
Tel: 1-631-624-4882 Fax: 1-631-938-8221

	recombination and DNA double-strand break (DSB) repair through nonhomologous end joining (NHEJ). This protein forms a complex with the X-ray repair cross complementing protein 4 (XRCC4), and further interacts with the DNA-dependent protein kinase (DNA-PK). Both XRCC4 and DNA-PK are known to be required for NHEJ. The crystal structure of the complex formed by this protein and XRCC4 has been resolved. Defects in this gene are the cause of LIG4 syndrome. Alternatively spliced transcript variants encoding the same protein have been observed. [provided by RefSeq, Jul 2008]
Keywords	LIG4; ligase IV, DNA, ATP-dependent; LIG4S; DNA ligase 4; sealase; DNA joinase; DNA ligase IV; DNA repair enzyme; polynucleotide ligase; polydeoxyribonucleotide synthase [ATP] 4;

GENE INFORMATION

Entrez Gene ID	3981
UniProt ID	P49917
Pathway	2-LTR circle formation, organism-specific biosystem; DNA Repair, organism-specific biosystem; Double-Strand Break Repair, organism-specific biosystem; Early Phase of HIV Life Cycle, organism-specific biosystem; HIV Infection, organism-specific biosystem; HIV Life Cycle, organism-specific biosystem
Function	ATP binding; DNA binding; DNA ligase (ATP) activity; DNA ligase activity; DNA ligase activity; ligase activity; metal ion binding; nucleotide binding; protein C-terminus binding; protein binding

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