



# Mouse Anti-LOTUS monoclonal antibody, clone 63-2F, JUN (CABT-RM160)

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

## PRODUCT INFORMATION

<b>Specificity</b>	Detects Lateral olfactory tract usher substance (LOTUS) protein. it targets an epitope within the N-terminal region.
<b>Target</b>	LOTUS
<b>Immunogen</b>	A recombinant fragment of LOTUS protein consisting of several specific amino acids from the N-terminal region of rat lateral olfactory tract usher substance (LOTUS).
<b>Isotype</b>	IgG1, κ
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Clone</b>	63-2F, JUN
<b>Purification</b>	Protein G purified
<b>Conjugate</b>	unconjugated
<b>Applications</b>	WB
<b>Molecular Weight</b>	~75 kDa observed. Uncharacterized bands may be observed in some lysate(s).
<b>Format</b>	Liquid
<b>Size</b>	100 µg
<b>Buffer</b>	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
<b>Preservative</b>	0.05% sodium azide

## BACKGROUND

### Introduction

Lateral olfactory tract usher substance (LOTUS) is a membrane-bound and/or secreted protein that serves as an endogenous Nogo receptor-1 (NgR1) antagonist. It is shown to contribute to the formation of the lateral olfactory tract (LOT) axonal bundle and Nogo signaling through NgR1 promotes axonal branching and inhibits axonal growth. It has been shown that during development, axons from the olfactory receptor neurons exit the olfactory epithelium and grow towards the olfactory bulb where they synapse on the dendrites of mitral and tufted cells. The axons of these cells form axonal bundle known as the lateral olfactory tract. It has been reported that LOTUS inhibits the signaling of Nogo, MAG, OMgp, BLYS by blocking the interactions between these ligands and NgR1. Loss of LOTUS is reported to induce an increase in axonal branches and the loss of both LOTUS and NgR1 can rescue the abnormal increase in axonal branches and reduce axonal branches both in vitro and in vivo.

### Keywords

LOTUS; Lateral olfactory tract usher substance; Cartilage Acidic Protein-1B

---