

# PRODUCT INFORMATION

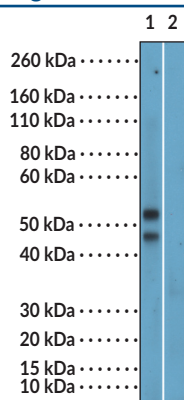


## JNK1/2/3 (Phospho-Thr<sup>183</sup>/Tyr<sup>185</sup>) Rabbit Monoclonal Antibody (Clone RM464) Item No. 35906

### Overview and Properties

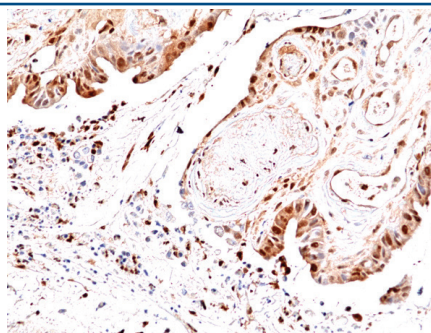
<b>Contents:</b>	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
<b>Synonym:</b>	c-Jun N-terminal Kinase
<b>Immunogen:</b>	Peptide corresponding to human JNK1/2/3 (phospho-Thr <sup>183</sup> /Tyr <sup>185</sup> )
<b>Cross Reactivity:</b>	(+) JNK1/2/3 (phospho-Thr <sup>183</sup> /Tyr <sup>185</sup> ); (-) JNK1/2/3 without phosphorylation at Thr <sup>183</sup> /Tyr <sup>185</sup>
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM464
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100 for IHC and 1:200 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images

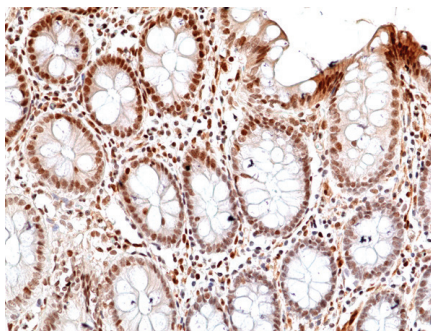


Lane 1: HeLa cell lysates treated  
Lane 2: HeLa cell lysates untreated

WB of cells treated with UV using JNK1/2/3 (Phospho-Thr<sup>183</sup>/Tyr<sup>185</sup>) Rabbit Monoclonal Antibody (Clone RM464) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human colon cancer tissue using JNK1/2/3 (Phospho-Thr<sup>183</sup>/Tyr<sup>185</sup>) Rabbit Monoclonal Antibody (Clone RM464) at a 1:100 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human colon tissue using JNK1/2/3 (Phospho-Thr<sup>183</sup>/Tyr<sup>185</sup>) Rabbit Monoclonal Antibody (Clone RM464) at a 1:100 dilution.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
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## Description

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c-Jun N-terminal kinases (JNKs) are stress-activated serine/threonine protein kinases and members of the MAPK family with roles in cell proliferation, differentiation, apoptosis, and migration.<sup>1,2</sup> JNKs are encoded by three distinct genes, *JNK1*, *JNK2*, and *JNK3*, which produce 10 variants via alternative splicing. *JNK1* and *JNK2* are ubiquitously expressed while *JNK3* is expressed at high levels in the CNS and low levels in cardiac smooth muscle and the testis.<sup>1</sup> In response to stress stimuli, such as osmotic or UV shock, cytokines, or growth factor signaling, JNKs are activated by phosphorylation at threonine 183 (Thr<sup>183</sup>) and tyrosine 185 (Tyr<sup>185</sup>) by MKK7 and MKK4, respectively, in a synergistic manner, and induce various transcription factor-mediated downstream signaling events.<sup>1,3</sup> Neuronal levels of JNK (phospho- Thr<sup>183</sup>/Tyr<sup>185</sup>) are increased in mouse models of sporadic and prion-induced Alzheimer's disease.<sup>4</sup> Renal JNK (phospho- Thr<sup>183</sup>/Tyr<sup>185</sup>) levels are increased in patients with glomerulonephritis and diabetic neuropathy and are associated with the degree of glomerulosclerosis and macrophage infiltration.<sup>2</sup> Cayman's JNK1/2/3 (Phospho-Thr<sup>183</sup>/Tyr<sup>185</sup>) Rabbit Monoclonal Antibody (Clone RM464) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Kumar, A., Singh, U.K., Kini, S.G., *et al.* JNK pathway signaling: A novel and smarter therapeutic target for various biological diseases. *Future Med. Chem.* **7(15)**, 2065-2086 (2015).
2. Grynberg, K., Ma, F.Y., and Nikolic-Paterson, D.J. The JNK signaling pathway in renal fibrosis. *Front. Physiol.* **8(829)**, (2017).
3. Thévenin, A.F., Zony, C.L., Bahnsen, B.J., *et al.* Activation by phosphorylation and purification of human c-Jun N-terminal kinase (JNK) isoforms in milligram amounts. *Protein Expr. Purif.* **75(2)**, 138-146 (2011).
4. Okazawa, H. and Estus, S. The JNK/c-Jun cascade and Alzheimer's disease. *Am. J. Alzheimers Dis. Other Demen.* **17(2)**, 79-88 (2002).

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