



# CELL APPLICATIONS, INC.

Published on *Cell Applications* (<https://www.cellapplications.com>)

[Home](#) > [Anti-Phospho IR?: Rabbit Polyclonal Insulin Receptor? Phospho-Tyr960 Antibody](#)

---

## Anti-Phospho IR?: Rabbit Polyclonal Insulin Receptor? Phospho-Tyr960 Antibody

- Description
- Details
- Products
- Resources

Product Sheet CB4378

### Description

**BACKGROUND** Insulin receptor is a transmembrane receptor that is activated by insulin. It belongs to the large class of tyrosine kinase receptors. Two alpha subunits and two beta subunits make up the insulin receptor. The beta subunits pass through the cellular membrane and are linked by disulfide bonds.<sup>1</sup> Insulin receptor functions as an enzyme that transfers phosphate groups from ATP to tyrosine residues on intracellular target proteins. Binding of insulin to the alpha subunits causes the beta subunits to phosphorylate themselves (autophosphorylation), thus activating the catalytic activity of the receptor. The activated receptor then phosphorylates a number of intracellular proteins, which in turn alters their activity, thereby generating a biological response.<sup>2</sup>

Several intracellular proteins have been identified as phosphorylation substrates for the insulin receptor, the best-studied of which is insulin receptor substrate 1 or IRS-1. The juxtamembrane phosphorylation site Tyr960 within the insulin receptor cytoplasmic domain is an essential determinant for the tyrosine phosphorylation of IRS-1.<sup>5</sup> When IRS-1 is activated by phosphorylation, it serves as a type of docking center for recruitment and activation of other enzymes that ultimately mediate insulin's effects, including activation of PI-3-kinase and MAP kinase pathways.<sup>3,4</sup>

### REFERENCES

1. Youngren, J.F.: *Cell Mol Life Sci.* 64:873, 2007
2. Backer, J.M. et al. *J Cell Biol.* 118:831, 1992
3. Sesti, G. : *Best Pract Res Clin Endocrinol Metab.* 20:665, 2006
4. Gual, P. et al. : *Biochimie* 87:99, 2005
5. Backer, J.M. et al. *J Cell Biol.* 118:831, 1992

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

[1]  
(Click to Enlarge) Specific detection of insulin receptor proteins containing phosphorylated Tyr960 from human adipocytes stimulated with insulin in Western Blot analysis using Phospho-Insulin Receptor-beta (Tyr960) Rabbit Polyclonal Antibody.

## Details

Cat.No.:	CB4378	
Antigen:	Synthetic peptide containing human insulin receptor beta sequence (854-966) which includes phosphorylated Tyr960	
Isotype:	rabbit polyclonal IgG	
Species & predicted species cross-reactivity ( ):	Human, Mouse, Rat	
Applications & Suggested starting dilutions:	WB	1:1000
	IP	n/d
	IHC (Paraffin)	n/d
	ICC	n/d
	FACS	n/d
Predicted Molecular Weight of protein:	97 kDa	
Specificity/Sensitivity:	Anti-Phospho-Insulin Receptor (Tyr960) specifically detects endogenous levels of phosphorylated insulin receptor-beta protein. This antibody does not cross-react with other IR-family members.	
Storage:	Store at -20°C, 4°C for frequent use. Avoid repeated freeze-thaw cycles.	

\*Optimal working dilutions must be determined by end user.

## Products

## Resources/Documents

[Product Sheet CB4378](#) [2]

## Misc. Links

- [Site](#)
- [Privacy](#)
- [Returns](#)
- [Shipping](#)
- [Terms](#)

- 
- 

[Disclaimer](#)  
[Distributors](#)

#### Contact Us

**Cell Applications, Inc**  
6455 Weathers Place  
San Diego, CA 92121  
Open M-F, 8am-5pm PST

**800-645-0848**  
**info@cellapplications.com**

#### Socialize With Us

- 

## Newsletter Signup

[Subscribe to our newsletter](#)

---

**Source URL:**<https://www.cellapplications.com/anti-phospho-ir-rabbit-polyclonal-insulin-receptor-phospho-tyr960-antibody>

#### Links

[1] [https://www.cellapplications.com/sites/default/files/images\\_product\\_type/FileCat000dvrvalj.gif](https://www.cellapplications.com/sites/default/files/images_product_type/FileCat000dvrvalj.gif)  
[2] <https://www.cellapplications.com/sites/default/files/documents/product-sheets/Product Sheet CB4378 Insulin Receptor beta, Phospho-Tyr960.pdf>