

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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**Proteins** 

**Product** Data Sheet



### **Patritumab**

Cat. No.: HY-P99275 CAS No.: 1262787-83-6

Target: EGFR; Akt; ERK; PARP; Survivin

JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; PI3K/Akt/mTOR; MAPK/ERK Pathway:

Pathway; Stem Cell/Wnt; Cell Cycle/DNA Damage; Epigenetics; Apoptosis

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

### **BIOLOGICAL ACTIVITY**

#### Description

Patritumab (Human Anti-ERBB3 Recombinant Antibody) is a neutralizing monoclonal antibody to ERBB3. Patritumab shows a synergy with Cetuximab (HY-P9905), potently inhibits the phosphorylation of EGFR, HER2, HER3, ERK, and AKT. Patritumab also induces cell apoptosis and suppresses the growth of pancreatic, non-small cell lung cancer, and colorectal cancer xenograft tumors<sup>[1]</sup>.

#### In Vitro

Patritumab targets to the extracellular domain (ECD) of HER3 and (10 μg/mL; 5 d) induces DiFi-HRG4 cells apoptosis<sup>[1]</sup>. Patritumab (10 μg/mL; 6 h) markedly inhibits the phosphorylation of HER3 and AKT, without affecting that of ERK, in DiFi-HRG4 cells<sup>[1]</sup>.

Patritumab (10 µg/mL; 48 h) also induces the cleavage of PARP accompanied with both up-regulation of BIM and downregulation of survivin expression<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis<sup>[1]</sup>

Cell Line:	DiFi-HRG cells
Concentration:	10 μg/mL
Incubation Time:	6 hours
Result:	Inhibited the phosphorylation of HER3 and AKT as well as down-regulated survivin expression.

#### In Vivo

Patritumab (1 mg/mouse; i.p.; twice a week for 4 weeks) combines with 1 mg Cetuximab and restores Cetuximab sensitivity in DiFi-HRG tumor xenografts model in mice<sup>[1]</sup>.

Heregulin produced by colorectal cancer tumors harboring wild-type KRAS induces Cetuximab resistance, and that combination therapy with cetuximab and patritumab overcomes such resistance in vivo $^{[1]}$ .

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female athymic nude mice (BALB/c; 5-6 weeks old) with DiFi-Mock1 or DiFi-HRG4 (s.c.) <sup>[1]</sup>
Dosage:	1 mg/body
Administration:	Intraperitoneal injection; twice a week for 4 weeks

Result:	Individual Patritumab treatment had little effect on the growth of tumors formed by either
	cell line.
	Combination of Cetuximab and Patritumab induced substantial regression of DiFi-HRG4
	xenografts.

### **REFERENCES**

[1]. Kawakami H, et al. The anti-HER3 antibody patritumab abrogates cetuximab resistance mediated by heregulin in colorectal cancer cells. Oncotarget. 2014 Dec 15;5(23):11847-56.

Caution: Product has not been fully validated for medical applications. For research use only.

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