



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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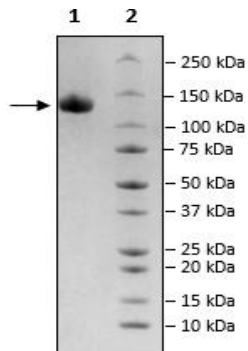
[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

## Product Information

<b>Description:</b>	Recombinant human HER4 (human epidermal growth factor receptor 4), also known as ErbB4, encompassing amino acids 26-651 (extracellular domain). This construct contains an Fc domain of human IgG1 fused to the C-terminus, followed by a C-terminal Avi-Tag™. This protein was affinity purified.
<b>Background:</b>	HER4 (human epidermal growth factor receptor 4), also known as ErbB4 or receptor-tyrosine kinase 4, is a receptor tyrosine kinase of the EGFR family. It is required for the development of the heart, nervous system, and mammary gland, and can also be found in the postsynaptic side of neuromuscular junctions and epidermis. HER4 is activated by neuroregulin 2-4, betacellulin and heparin binding EGF-like growth factor (HB-EGF) and is involved in mitogenesis and cell differentiation. HER4 undergoes a conformational change upon ligand binding and forms homodimers or heterodimers with other HER proteins to activate the MAPK (mitogen-activated protein kinases) and PI3K (phosphoinositide 3-kinase)/AKT pathways. Mutations in this protein can result in cancer but have also been linked to ALS (amyotrophic lateral sclerosis) type 19 and schizophrenia. The role of this protein as oncogene or suppressor is still not fully determined, potentially being dependent on the cancer type. Several HER4 inhibitors have been developed and are undergoing clinical trial. Afatinib, a pan-HER inhibitor, has been approved for the treatment of NSCLC (non-small cell lung cancer), but may cause acute liver injury and death. The development of highly specific inhibitors for HER4 may prove beneficial in oncology.
<b>Species:</b>	Human
<b>Construct:</b>	HER4 (ErbB4) (26-651-Fc(IgG1)-Avi)
<b>Concentration:</b>	0.91 mg/ml
<b>Expression System:</b>	HEK293
<b>Purity:</b>	≥90%
<b>Format:</b>	Aqueous buffer solution.
<b>Formulated In:</b>	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
<b>MW:</b>	99 kDa + glycans
<b>Glycosylation:</b>	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
<b>Genbank Accession:</b>	NM_005235.3
<b>Stability:</b>	At least 6 months at -80°C.
<b>Storage:</b>	-80°C
<b>Instructions for Use:</b>	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
<b>Assay Conditions:</b>	The NRG1β Protein, Human (HEK293) was coated onto a 96-well plate overnight at 4°C (50 µl/well at a concentration of 0.5 µg/ml in PBS). The plate was washed 3 times with PBST and blocked using 200 µl of Blocking Buffer 3 (BPS Bioscience #79743) for 2 hours at Room Temperature (RT). After removing the blocking buffer, 50 µl/well of purified HER4, serially diluted in 1x PP-02 Buffer, was added for 1 hour at RT. After washing, the plate was incubated for 40 minutes with HRP-labeled anti-FC antibody diluted 1:1000 in Blocking Buffer 3 (50 µl/well) and washed again. Finally, 100 µl of ECL substrate was added to each well and plate was read immediately in a luminometer or microtiter-plate reader capable of reading chemiluminescence.
<b>Applications:</b>	Useful for studying the binding of HER4 in ELISA and in cellular assays.

## Quality Control Data

### 4-20% SDS-PAGE Coomassie Staining



### Binding of HER4 (ErbB4) to NRG1 $\beta$

