

# Custom monoclonal antibody reveals promising HER2+ breast cancer target

**AMSBIO** has supplied a **custom monoclonal antibody** (mAB) to researchers at the **TU Dortmund**\*\* in Germany to unravel the role of EDI3 in breast cancer development, its regulation by HER2 signalling, and its potential as a therapeutic target.



**Image captions:** Dr. Rosemarie Marchan of the Leibniz Research Centre for Working Environment & Human Factors at the TU Dortmund in Germany

### Characterized

by the overexpression of the Human Epidermal growth factor Receptor 2 (HER2) - HER2+ breast cancer is a highly aggressive disease subtype. While HER2-targeted treatments have improved patient outcomes for this form of cancer, acquired and inherent resistance to these treatment remains a challenge, prompting investigations into alternative therapeutic targets.

### The team of researchers,

led by Dr. Rosemarie Marchan, has conducted an extensive study to explore the clinical relevance of EDI3 - a glycerophosphodiesterase enzyme involved in choline metabolism, in HER2-positive breast cancer using the custom mAB against EID3 prepared and supplied by AMSBIO.

#### **Dr Marchan commented**

"We have tested many off-the-shelf antibodies over the years, with little to no success. We have also contracted companies to create a custom antibody for us, but again with limited success. Therefore, we are very thankful a few years ago that we were able to get a great antibody against EID3 from AMSBIO. Using this precious antibody our team has been able to demonstrate that inhibiting EDI3 in ER-HER2+ breast cancer cells resistant to HER2-targeted therapy reduces viability and tumour growth".



**Image captions**: Immunohistochemistry on a human breast cancer tissue microarray (TMA) using a custom-made anti-EDI3 antibody from AMSBIO (clone 3B8G3), showing strong EDI3 positivity.



## Having supplied product

to thousands of industrial and academic projects in the last 20 years - AMSBIO is today widely recognised as a leading provider of both off the shelf and custom antibodies. The company offers an informed high-quality service for the generation of custom monoclonal antibodies specific to your target antigen. For further information please visit <a href="https://rb.gy/u22dr">https://rb.gy/u22dr</a> or contact AMSBIO on on +31-72-8080244 / +44-1235-828200 / +1-617-945-5033 / info@amsbio.com.

# To read the full case study

describing the work of Dr. Marchan and her team in the Leibniz Research Centre for Working Environment and Human Factors (IfADo) at the TU Dortmund\*\* please visit https://www.amsbio.com/news/targeting-edi3-breast-cancer

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Founded in 1987, AMS Biotechnology (AMSBIO) is recognized today as a leading transatlantic company contributing to the acceleration of discovery through the provision of cutting-edge life science technology, products, and services for R&D in the medical, nutrition, cosmetics, and energy industries. AMSBIO has in-depth expertise in extracellular matrices to provide elegant solutions for studying cell motility, migration, invasion, and proliferation. This expertise in cell culture and the ECM allows AMSBIO to partner with clients in tailoring cell systems to enhance organoid and spheroid screening outcomes using a variety of 3D culture systems, including organ-on-a-chip microfluidics. For drug discovery research, AMSBIO offers assays, recombinant proteins, and cell lines. Drawing upon a huge and comprehensive biorepository, AMSBIO is widely recognized as a leading provider of high-quality tissue specimens (including custom procurement) from both human and animal tissues. The company provides unique clinical grade products for stem cells and cell therapy applications. This includes GMP cryopreservation technology, and high-quality solutions for viral delivery.

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### Worldwide HQ

#### AMS Biotechnology (AMSBIO) 184 Milton Park Abingdon Oxon OX14 4SE UK

Tel: +44-1235-828200 Fax: +44-1235-820482 Email: <u>info@amsbio.com</u> Web <u>www.amsbio.com</u>