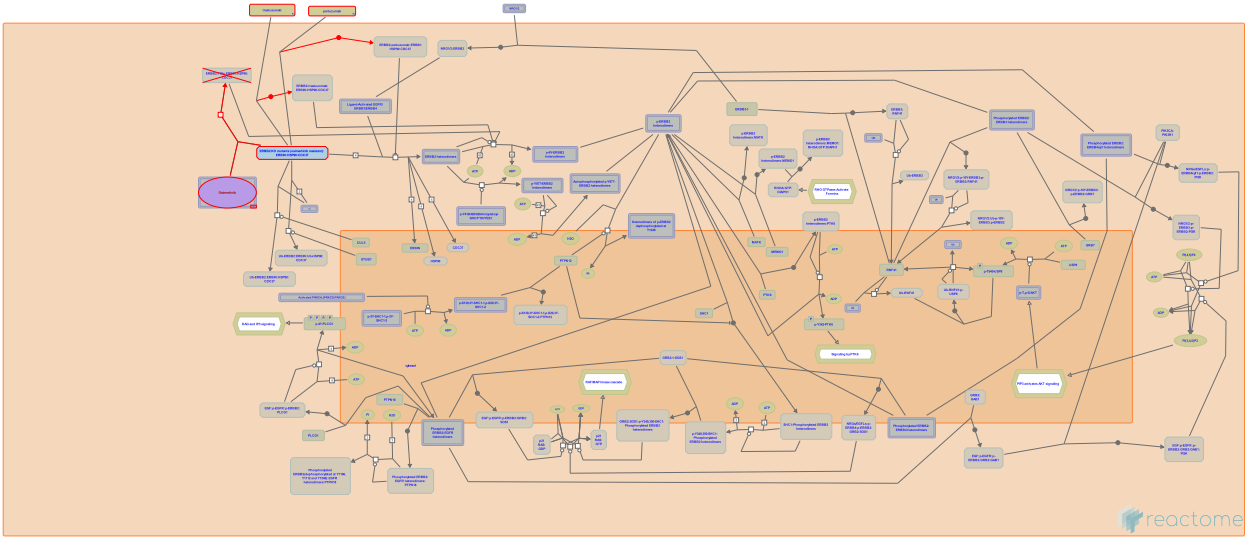
Resistance of ERBB2 KD mutants to os-imertinib



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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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Literature references

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

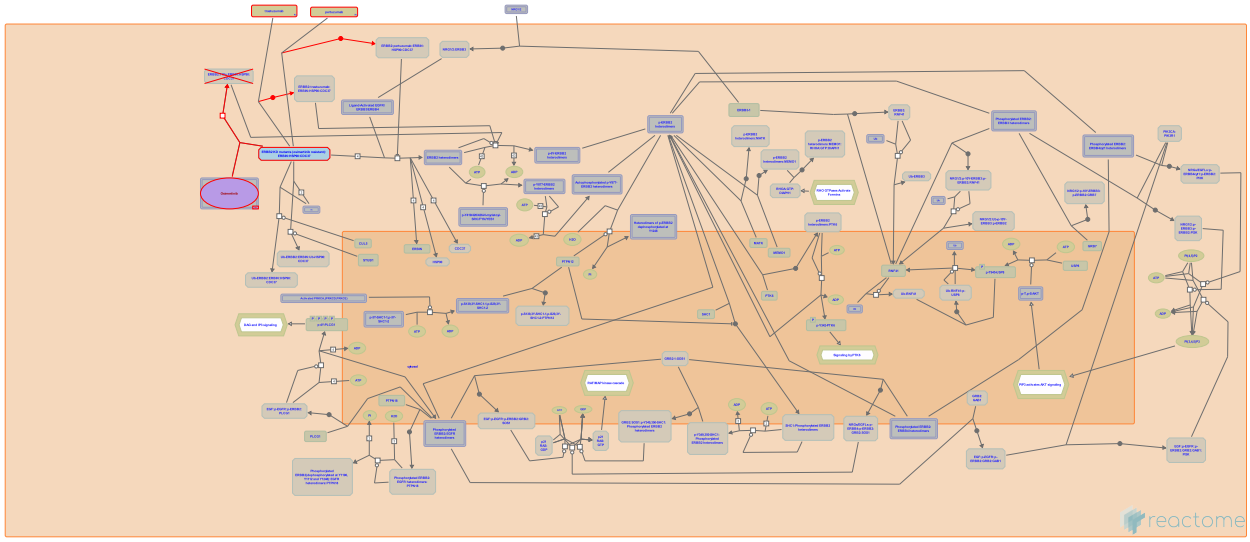
Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res, 46*, D649-D655. ↗

Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968. ↗

Resistance of ERBB2 KD mutants to osimertinib ↗

Stable identifier: R-HSA-9665247

Diseases: cancer



This pathway describes resistance of ERBB2 KD mutants to tyrosine kinase inhibitor osimertinib (Hanker et al. 2017).

Literature references

Hyman, DM., Solit, DB., Nagy, R., Sheehan, JH., Sliwoski, GR., Berger, MF. et al. (2017). An Acquired HER2^{T798I} Gatekeeper Mutation Induces Resistance to Neratinib in a Patient with HER2 Mutant-Driven Breast Cancer. *Cancer Discov, 7*, 575-585. ↗

Editions

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ERBB2 KD mutants do not bind osimertinib ↗

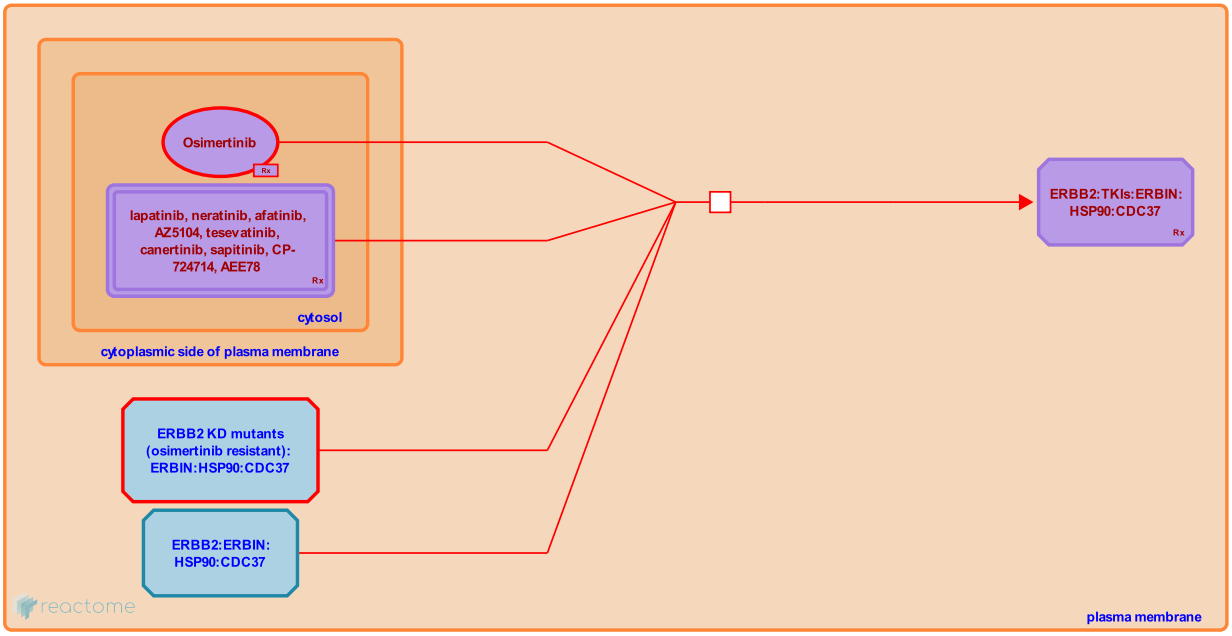
Location: Resistance of ERBB2 KD mutants to osimertinib

Stable identifier: R-HSA-9665280

Type: transition

Compartments: plasma membrane, cytosol

Diseases: cancer



The following ERBB2 KD mutants are resistant to osmertinib:
ERBB2 T798I (Hanker et al. 2017);
ERBB2 T798M (Hanker et al. 2017);
ERBB2 L869R (Hanker et al. 2017);

Literature references

Hyman, DM., Solit, DB., Nagy, R., Sheehan, JH., Sliwoski, GR., Berger, MF. et al. (2017). An Acquired HER2^{T798I} Gatekeeper Mutation Induces Resistance to Neratinib in a Patient with HER2 Mutant-Driven Breast Cancer. *Cancer Discov, 7*, 575-585. ↗

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