

G protein-coupled estrogen receptor (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database

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Abstract

The G protein-coupled estrogen receptor (GPER, **nomenclature as agreed by the NC-IUPHAR Subcommittee on the G protein-coupled estrogen receptor [24]**) was identified following observations of estrogen-evoked [cyclic AMP](#) signalling in breast cancer cells [2], which mirrored the differential expression of an orphan 7-transmembrane receptor GPR30 [5]. There are observations of both cell-surface and intracellular expression of the GPER receptor [27, 32]. Selective agonist/ antagonists for GPER have been characterized [24]. Antagonists of the nuclear estrogen receptor, such as [asfulvestrant](#) [10], [tamoxifen](#) [27, 32] and [raloxifene](#) [23], as well as the flavonoid 'phytoestrogens' [genistein](#) and [quercetin](#) [16], are agonists of GPER. A complete review of GPER pharmacology has been recently published [24]. The roles of GPER in physiological systems throughout the body (cardiovascular, metabolic, endocrine, immune, reproductive) and in cancer have also been reviewed [24, 25, 18, 15, 8].

Contents

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Please note that the database version for the citations given in GtoPdb are to the most recent preceding version in which the family or its subfamilies and targets were substantially changed. The links below are to the current version. If you need to consult the cited version, rather than the most recent version, please contact the GtoPdb curators.

Database links

[G protein-coupled estrogen receptor](#)

<http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=22>

Introduction to G protein-coupled estrogen receptor

<http://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=22>

Receptors

GP_{ER}

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=221>

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