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Apelin receptor in GtoPdb v.2023.1

Anthony P. Davenport[1], Matthias Kleinz[1], Janet J. Maguire[1], Thomas L. Williams[1] and Peiran Yang[1]

1. University of Cambridge, UK

Abstract

The apelin receptor (**nomenclature as agreed by the NC-IUPHAR Subcommittee on the apelin receptor [73] and subsequently updated [75]**) responds to apelin, a 36 amino-acid peptide derived initially from bovine stomach. apelin-36, apelin-13 and [Pyr[1]]apelin-13 are the predominant endogenous ligands which are cleaved from a 77 amino-acid precursor peptide (*APLN*, Q9ULZ1) [88]. A second family of peptides discovered independently and named Elabela [13] or Toddler, that has little sequence similarity to apelin, is present, and functional at the apelin receptor in the adult cardiovascular system [97, 71]. The enzymatic pathways generating biologically active apelin and Elabela isoforms have not been determined but both propeptides include sites for potential proprotein convertase processing [81]. Structure-activity relationship Elabela analogues have been described [65, 90]. The stoichiometry of apelin receptor-heterotrimeric G protein complexes has been studied using cryogenic-electron microscopy [98].

Contents

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https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=7
- Receptors
  - apelin receptor
    https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=36

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