

Publication**A novel 7-transmembrane receptor expressed in nerve growth factor-dependent sensory neurons****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 156549**Author(s)** Friedel, R H; Stubbusch, J; Barde, Y A; Schnürch, H**Author(s) at UniBasel** [Barde, Yves-Alain](#) ;**Year** 2001**Title** A novel 7-transmembrane receptor expressed in nerve growth factor-dependent sensory neurons**Journal** Molecular and cellular neuroscience**Volume** 17**Number** 1**Pages / Article-Number** 31-40**Keywords** Animals; Blotting; Northern; Cells; Cultured; Central Nervous System/cytology/embryology/metabolism; Chick Embryo; Chickens; Cloning; Molecular; Enteric Nervous System/cytology/embryology/metabolism; Gene Expression Regulation; Developmental; In Situ Hybridization; Molecular Sequence Data; Nerve Growth Factor/*metabolism/pharmacology; Neurons; Afferent/cytology/drug effects/*metabolism; Organ Specificity/genetics; Peripheral Nervous System/cytology/embryology/metabolism; RNA; Messenger/biosynthesis; Receptors; Cell Surface/*biosynthesis/*genetics/metabolism; *Receptors; G-Protein-Coupled; Sequence Homology; Amino Acid; Species Specificity

This study reports on the full-length cDNA cloning of a gene identified on the basis of its preferential expression in nerve growth factor, compared with neurotrophin-3-dependent neurons. It encodes a putative 7-transmembrane polypeptide that is distantly related to other members of the G protein-coupled receptor superfamily. Unique features of this receptor include a very long carboxy-terminal tail of 360 amino acids and a specific expression pattern in the chick peripheral nervous system, including nerve growth factor-dependent sensory and sympathetic neurons, as well as enteric neurons. In the central nervous system, the receptor is strongly developmentally regulated and is expressed at high levels in the external granule cell layer of the cerebellum, as well as in motoneurons of the spinal cord, and in retinal ganglion cells.

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