xPharm

Unsurpassed pharmacological e-content

Presented by: Doreen Tan
Title: Product Sales Manager, Life Science
Date: 14 July 2005, Thursday
xPharm
– for medicinal pharmacology & life science

- Authoritative
- Reliable
- Unique
- Comprehensive
- Dynamic
- Integrated
A number of novel approaches for the treatment of diabetes are under investigation. Included are pancreatic islet cell transplantation (Champion et al. 2000) and in vivo gene therapy (Chan et al. 2000). There are a number of animal models of diabetes. The most common employs streptozotocin to destroy pancreatic beta cells in the rat pancreas (Wei et al. 2000).
EASY to VIEW

Consistent colour coding
✓ Orientates users
✓ Quick to recognise
EASY to BROWSE

Simply point and click to drill to details.
Detailed

Pharmacological Regulation

As noted above, the binding of agonists to the D3 receptor is not regulated by guanine nucleotides. For the binding affinities of additional ligands at the D3 dopamine receptor, other than those given below visit [http://kodb.bioc.cwru.edu/pdsp.php](http://kodb.bioc.cwru.edu/pdsp.php) and search on "Dopamine D3".

**Agonist / Activator / Substrate**

**Mutant Targets**

The tGRAP mutant receptor database ([http://tgrap.uio.no/queryform10.html](http://tgrap.uio.no/queryform10.html)) lists a number of mutants of the D3 dopamine receptor.

**Assays**

- **Molecular / Cellular**
  - Reliable in vitro biochemical assays of D3 receptor function have been difficult to develop. As noted above, the D3 receptor is not robustly coupled to the inhibition of cyclic AMP accumulation unless expressed in a cell that either endogenously expresses, or has been transfected with type V adenylate cyclase (Robinson and Caron, 1992). Enhancement of \(^{[35]}\text{S}\)GTP-gamma-G binding to membrane preparations can be employed to assess G protein-coupling. Cellular-based assays have included induction of mitogenesis and c-fos production, although these responses are downstream of initial second messenger generation. Electrophysiological methods that involve assessment of potassium or calcium channel activity in cells or tissue slice preparations can also be employed.

- **Genetically Engineered Organisms**
  - D3 receptor knockout mice have been produced by three separate groups, reviewed in Sibbey (1999) and Schmauss (2001). In some cases, the D3 receptor-deficient mice have been crossed with other dopamine receptor-deficient mice, such as the D2 knockout mouse, to create mice lacking multiple dopamine receptors.

**Disorders**

- Like the D2 receptor, the D3 receptor exhibits high affinity for most antipsychotic drugs suggesting that it may be involved in psychiatric disorders. However, numerous neuropathological and genetic studies have failed to provide a conclusive association between D3 receptors and schizophrenia. Nonetheless, blockade of the D3 receptor may contribute to the efficacy of some antipsychotic drugs, reviewed in Schwartz et al. (2000).

**Other Information**

- **Web Sites:**
  - Molecule page of the Alliance for Cellular Signaling. PID for the dopamine D3 receptor is A000782: [http://www.afcs.org/](http://www.afcs.org/)
Extensive & Comprehensive

Research report

CLIC6, a member of the intracellular chloride channel family, interacts with dopamine D2-like receptors

Nathalie Grillo, Freddy Jeannet, Kany Pons, Jorge

Accepted 25 June 2003; Available online 8 August 2003.
Easy to QuickSearch

Search Results within xPharm
Your Search: alzheimer

Viewing 1 - 20 of 62 results

1. Alzheimer's Disease
2. Pseudocholinesterase
3. Secretases
4. Beta Secretase
5. Learning and Memory
6. Galantamine
7. Donepezil
8. Muscarinic Acetylcholine Receptors
Display only Relevant Data

1. **Imatinib**
   
   **Targets-Pharmacodynamics**
   
   Imatinib mesylate predominantly targets Abl tyrosine kinase and its oncogenic fusion form Bcr-Abl by competitively inhibiting ATP binding at the active site. It also has high affinity for the ATP binding pockets of c-Kit and PDGFR tyrosine kinases.
   
   **Target Name(s):**
   - Abl kinase
   - Bcr-Abl kinase
   - c-Kit
   - PDGF receptor

2. **Apraclonidine**
   
   **Targets-Pharmacodynamics**
   
   Apraclonidine is a non-selective alpha-1 and alpha-2 adrenoceptor agonist.

   **Target Name(s):**
   - Alpha-1 Adrenoceptors
   - Alpha-2 Adrenoceptors

3. **Interferon alpha-2b**
Examples

- Paralens (panadol)
- xPharm editors
www.xpharm.com

- Web-access
- IP authenticated, no username password needed
Evolving Dynamic & Relevant Links to & Complementary Existing Resources

Campus-wide Access 24/7 and for Everyone

Expt'l Therapies & Pharmacological Content

Unique X-factor
THANK YOU!

You’ve been a wonderful audience!

Doreen Tan
Product Sales Manager
D.Tan@elsevier.com
T: (65) 6349 0212

On-site demos and 30-day trials available.

ARRANGE FOR ONE TODAY!