



Alberta Research Chemicals Inc.



Where Our Expertise Meets Your Outsourcing Needs

Lexitropsin Building Blocks

Our featured building blocks

Modified monomers:

- N-Methyl imidazoles
- N-Methyl pyrroles
- L-Prolines

Dipeptide derivatives:

- Pyrrole-Imidazole
- Imidazole-Pyrrole
- Imidazole-Imidazole
- Pyrrole-Pyrrole
 - With side chains
 - With linker arms
 - With mixed functionalities

Tripeptide derivatives

- Pyrr-Im-Pyrr
- Im-Pyrr-Im
- Pyrr-Pyrr-Im
- Pyrr-Im-Im and many more...

In addition, ARCI offers custom synthesis of products tailored to your specific needs. For more information, please contact:

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The naturally occurring oligopeptide antibiotics, Netropsin and Distamycin not only represent important paradigms of sequence-selective DNA minor groove binders but also provide important direction to discover anti-cancer agents with high specificity. Conjugation to these polyamide structures, commonly called "Lexitropsins" has increased the specificity of other minor groove binding agents several folds. At ARCI, we have several years of experience in this narrow yet very valuable chemistry. We have noticed the recent advancements in the development of novel and target specific anti-cancer drugs and developed library of building blocks used in the lexitropsin synthesis.

We offer wide range of pyrrole and imidazole building blocks and by using them you can build your lexitropsin libraries quickly and cost effectively. The choice of functional groups present on our building blocks allows you to do further modification to prepare your final target molecules.

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Our selected publications:

1. Reddy B.S.P., et al., "Recent Developments in sequence selective minor groove:...", *Curr Med Chem.* **2001**,8(5):475-508. Review
2. Reddy B.S.P., et al., "Synthetic DNA minor groove-binding drugs", *Pharmacol. Ther.*, **1999**, 84(1):1-111. Review
3. D. Yalamati et al. "Design and Synthesis of Novel PBD-Lexitropsin conjugates", *J. Org. Chem.*, **1999**, 64, 290.
4. Reddy B.S.P., Lown JW., et al., "Design, Synthesis and in vitro cytotoxicity...." *Anticancer Drug Des.*, **2000**, 15(3), 225-38
5. Reddy B., et al. "Approaches to Develop DNA Sequence-Specific Agents", *Drugs of the Future*, **2001**, 26, 39.

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