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## Product Datasheet

**Gemcitabine HCl, CAS [[122111-03-9]]**  
**FBM-10-2140**

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Article Name               | Gemcitabine HCl, CAS [[122111-03-9]]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Biozol Catalog Number      | FBM-10-2140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Supplier Catalog Number    | 10-2140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Alternative Catalog Number | FBM-10-2140-10MG,FBM-10-2140-50MG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Manufacturer               | Focus Biomolecules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Category                   | Biochemikalien                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Product Description        | DNA polymerase inhibitor...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Molecular Weight           | 299.66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Purity                     | 98%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form                       | White solid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CAS Number                 | [122111-03-9]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Formula                    | C9H11F2N3O4HCl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Application Notes          | <p>Gemcitabine is a clinically useful anticancer agent.<sup>1</sup> It exerts its cytotoxic effects via the metabolites gemcitabine diphosphate (dFdCDP) and gemcitabine triphosphate (dFdCTP). dFdCTP is an inhibitor of DNA polymerase and is also incorporated in DNA strands resulting in termination of chain elongation and apoptosis. dFdCDP is an inhibitor of ribonucleotide reductase which results in depletion of deoxyribonucleotides needed for DNA synthesis. Gemcitabine metabolites have also been reported to inhibit cytidine triphosphate synthetase (CTP synthetase)<sup>2</sup> and deoxycytidylate deaminase (dCMP deaminase)<sup>3</sup>. Topoisomerase 1 has also been shown to be a target for gemcitabine.<sup>4</sup></p> |