1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{17}\text{H}_{19}\text{N}_{5}\cdot3\text{HCl} \)

Batch Molecular Weight: 402.75

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at +4°C

2. ANALYTICAL DATA

TLC: \( R_f = 0.5 \) (Dichloromethane:Methanol [20:1])

Melting Point: Between 231 - 235°C

HPLC: Shows >99.5% purity

\(^1\text{H} \text{NMR:}\) Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 50.7 5.51 17.39

Found 50.5 5.46 17.02
**Product Name:** ABT 724 trihydrochloride  
**CAS Number:** 587870-77-7  
**IUPAC Name:** 2-[[4-(2-Pyridinyl)-1-piperazinyl]methyl]-1H-benzimidazole trihydrochloride

### Description:
Potent dopamine D$_4$ receptor partial agonist (EC$_{50}$ = 12.4 nM; 61% efficacy vs. dopamine). Has no agonist activity at D$_2$ receptors (EC$_{50}$ > 10 µM). Selective in rats in vivo; produces penile erection following i.c.v. administration; increases intracavernosal pressure and potentiates the proerectile effects of sildenafil following s.c. administration. Displays minimal side effects.

### Physical and Chemical Properties:
- **Batch Molecular Formula:** C$_{17}$H$_{19}$N$_5$.3HCl
- **Batch Molecular Weight:** 402.75
- **Physical Appearance:** White solid
- **Minimum Purity:** >99%

### Batch Molecular Structure:

![Batch Molecular Structure](image)

### Storage:
Desiccate at +4°C

### Solubility & Usage Info:
Water to 100 mM

### Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

### References: