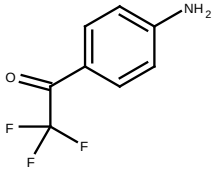
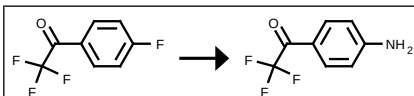
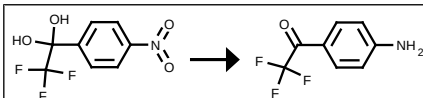


## Query

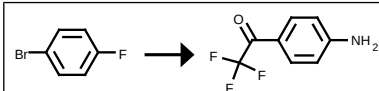
|          | Query                                                                                                                                                                                                             | Results     | Date                         |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------|
| 1. Query | <div data-bbox="512 551 724 719">  </div> <p data-bbox="368 748 868 770">Search as: Product, As drawn, No salts, No mixtures</p> | 7 reactions | 2012-02-22 07h:54m:58s (EST) |


Rx-ID: 1992500 [View in Reaxys](#) 1/7

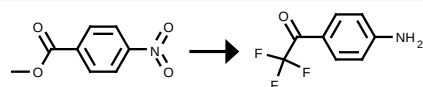
| Yield | Conditions & References                                                                                                                                                                                                                                    |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 54 %  | <b>With ammonia in dimethyl sulfoxide</b><br><br><b>Mertz, Eric; Zimmerman, Steven C.;</b> Journal of the American Chemical Society; <b>vol.</b> 125; nb. 12; (2003); p. 3424 - 3425<br><a href="#">View in Reaxys</a>                                     |
|       | <b>With ammonia in dimethyl sulfoxide, Time= 24h, T= 135 °C</b><br><br><b>Richard, John P.; Amyes, Tina L.; Vontor, Tomas;</b> Journal of the American Chemical Society; <b>vol.</b> 114; nb. 14; (1992); p. 5626 - 5634<br><a href="#">View in Reaxys</a> |


Rx-ID: 10531204 [View in Reaxys](#) 2/7

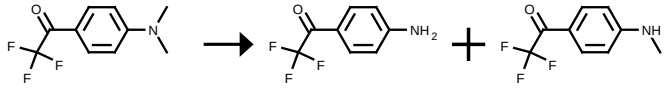
| Yield | Conditions & References                                                                                                                                                                                                                                                              |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 79 %  | <b>With iron, acetic acid in ethanol, Heating</b><br><br><b>Wallace, David M.; Haramura, Masayuki; Cheng, Jie-Fei; Arrhenius, Thomas; Nadzan, Alex M.;</b> Bioorganic & Medicinal Chemistry Letters; <b>vol.</b> 17; nb. 4; (2007); p. 1127 - 1130<br><a href="#">View in Reaxys</a> |

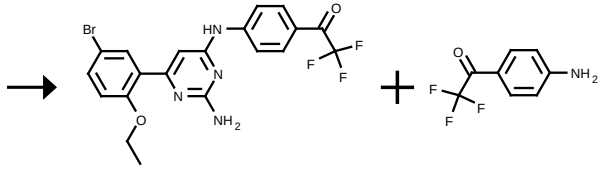

Rx-ID: 14400199 [View in Reaxys](#) 3/7

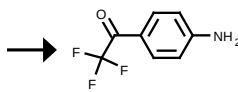
| Yield | Conditions & References                                                                                                                                                                                                                                                                                                                                                |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Reaction Steps: 2<br>1: 55 percent / Mg / tetrahydrofuran<br>2: 54 percent / NH <sub>3</sub> / dimethylsulfoxide<br><b>With ammonia, magnesium in tetrahydrofuran, dimethyl sulfoxide</b><br><br><b>Mertz, Eric; Zimmerman, Steven C.;</b> Journal of the American Chemical Society; <b>vol.</b> 125; nb. 12; (2003); p. 3424 - 3425<br><a href="#">View in Reaxys</a> |


Rx-ID: 11773066 [View in Reaxys](#) 4/7

| Yield | Conditions & References                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Reaction Steps: 2<br>1.1: TBAF / CH <sub>2</sub> Cl <sub>2</sub> / -78 - 20 °C<br>1.2: 92 percent / aq. HCl / acetone<br>2.1: 79 percent / Fe; AcOH / ethanol / Heating<br><b>With tetrabutyl ammonium fluoride, iron, acetic acid in ethanol, dichloromethane</b><br><br><b>Wallace, David M.; Haramura, Masayuki; Cheng, Jie-Fei; Arrhenius, Thomas; Nadzan, Alex M.;</b> Bioorganic & Medicinal Chemistry Letters; <b>vol.</b> 17; nb. 4; (2007); p. 1127 - 1130<br><a href="#">View in Reaxys</a> |

|  |                                                                                                                                                                                                                                | Rx-ID: 2091537 <a href="#">View in Reaxys</a> 5/7 |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Yield                                                                             | Conditions & References                                                                                                                                                                                                        |                                                   |
| 0.4 g, 0.4 g                                                                      | <b>With manganese(IV) oxide in chloroform, Time= 91h, Ambient temperature</b><br><br><b>Stewart, Ross; Teo, K. C.;</b> Canadian Journal of Chemistry; <b>vol.</b> 58; (1980); p. 2491 - 2496<br><a href="#">View in Reaxys</a> |                                                   |
| 0.4 g, 0.4 g                                                                      | <b>With manganese(IV) oxide in chloroform, Time= 91h, Ambient temperature</b><br><br><b>Stewart, Ross; Teo, K. C.;</b> Canadian Journal of Chemistry; <b>vol.</b> 58; (1980); p. 2491 - 2496<br><a href="#">View in Reaxys</a> |                                                   |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Rx-ID: 25858344 <a href="#">View in Reaxys</a> 6/7 |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Yield                                                                             | Conditions & References                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                    |
| 28%                                                                               | <p><b>Example Name 131</b><br/> <b>Example Title 1-{4-[2-Amino-6-(5-bromo-2-ethoxy-phenyl)-pyrimidin-4-ylamino]-phenyl}-2,2,2-trifluoro-ethanone</b><br/>           To a suspension of 2,2,2-trifluoro-1-(4-nitro-phenyl)-ethanone (4.5 g, 20.5 mmol) in concentrated hydrochloric acid (15 ml) and water (15 ml) was added tin (II) chloride (14 g, 74 mmol).<br/>           After stirring for 24 hours, the mixture was adjusted to pH 10 by addition of aqueous sodium hydroxide solution (50percent) and extracted with ethyl acetate.<br/>           The organic extract was concentrated under reduced pressure.<br/>           The residue was purified by flash chromatography on silica gel eluting with ethyl acetate-hexane (1:5) followed by recrystallization (ethyl acetate-hexane) to afford 1-(4-amino-phenyl)-2,2,2-trifluoro-ethanone (750 mg, 19percent yield).<br/>           Following the method described in Example 4,4-chloro-6-(5-bromo-2-ethoxy-phenyl)-pyrimidin-2-yl-amine and 1-(4-amino-phenyl)-2,2,2-trifluoro-ethanone provided the title compound (28percent yield).<br/> <sup>1</sup>H NMR (DMSO-d<sub>6</sub>) δ 1.42 (t, 3H, J=6.9 Hz, CH<sub>3</sub>), 4.17 (q, 2H, J=7.0 Hz, CH<sub>2</sub>), 6.60 (s, 2H, NH<sub>2</sub>), 6.90 (s, 1H, Ar), 7.13 (d, 2H, J=8.9 Hz, Ar), 7.56 (m, 1H, Ar), 7.99 (d, 2H, J=8.7 Hz, Ar), 8.06 (s, 1H, Ar), 8.12 (d, 2H, J=8.9 Hz, Ar), 10.00 (s, 1H, NH).</p> <p><b>Patent; Cell Therapeutics, Inc.;</b> US2004/204386; (2004); (A1) English<br/> <a href="#">View in Reaxys</a> </p> |                                                    |

|  |                                                                                                                                    | Rx-ID: 7790417 <a href="#">View in Reaxys</a> 7/7 |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Yield                                                                               | Conditions & References                                                                                                            |                                                   |
|                                                                                     | <b>Yagupol'skii et al.;</b> Zhurnal Organicheskoi Khimii; <b>vol.</b> 12; (1976); p. 166,161,162<br><a href="#">View in Reaxys</a> |                                                   |