

## NDiff® N2B27

<b>Catalogue Number</b>	SCS-SF-NB-02
<b>Size</b>	500 mL
<b>Applications</b>	Demonstrated applications of NDiff N2B27 include: <ul style="list-style-type: none"><li>• Neural differentiation of mouse embryonic stem (ES) cells in monolayer culture</li><li>• Mouse ES cell culture when used with appropriate supplementation</li></ul>
<b>Description</b>	<p>NDiff N2B27 is a proprietary, defined, serum-free medium for the neural differentiation of mouse ES cells in adherent monolayer culture conditions as described in Ying QL <i>et al</i> (2003)<sup>1</sup>.</p> <p>NDiff N2B27 has also been shown to support the serum-free, feeder-free culture of mouse ES cells when supplemented as described in Ying QL <i>et al</i> (2003)<sup>2</sup>.</p>
<b>Storage</b>	<p>Upon receipt, store at -20°C until ready to use. When stored under these conditions the product is stable for 6 months from the date of manufacture (see label).</p> <p>Once thawed, store at 4°C and use within 4 weeks.</p>
<b>Preparation</b>	NDiff N2B27 is a complete, ready-to-use medium for the neural differentiation of mouse ES cells. For use as a mouse ES cell culture medium please refer to Ying QL <i>et al</i> 2003 <sup>2</sup> .
<b>Quality control</b>	SC Proven® media products undergo rigorous quality control procedures before release.

<b>References</b>	<ol style="list-style-type: none"><li>1. Ying QL, Stavridis M, Griffiths D, Li M, Smith A (2003) Conversion of embryonic stem cells into neuroectodermal precursors in adherent monoculture. <i>Nature Biotechnology</i> <b>21</b>:183-186</li><li>2. Ying QL, Nichols J, Chambers I, Smith A (2003) BMP induction of Id proteins suppresses differentiation and sustains embryonic stem cell self-renewal in collaboration with STAT3. <i>Cell</i> <b>115</b>:281-292</li><li>3. Morrison G, Oikonomopoulou I, Portero Migueles R, Soneji S, Livigni A, Enver T, Brickman J (2008) Anterior Definitive Endoderm from ESCs reveals a role for FGF signaling. <i>Cell Stem Cell</i> <b>3</b>:402-415</li></ol>
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### Recommended Use

#### Neural differentiation of mouse ES cells in monolayer culture

1. Plate feeder independent early passage ES cells in NDiff N2B27 medium onto gelatin-coated tissue culture plastic at 2.5 - 10 x 10<sup>3</sup> cells/cm<sup>2</sup>.
2. Change medium every 1 - 2 days. ES cell death concomitant with early neural differentiation is to be expected.
3. Monitor for neuronal differentiation by cellular morphology and staining for neuronal markers.

Neural differentiation should be apparent after 4 - 6 days and neuronal maturation should occur after 7 - 9 days. The above protocol is recommended as a starting protocol. Specific culture conditions should be established for individual cell lines.