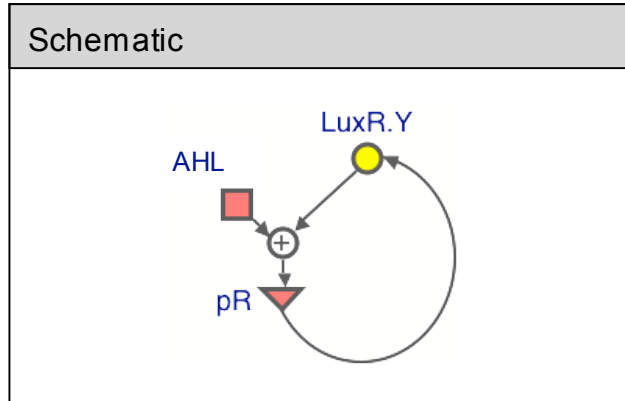












[Rec-RRY] Closed-Loop AHL Receiver Device

Author: Mukund Thattai (thattai@ncbs.res.in)

Date: October 16th, 2007



 Host: Ecoli K12Z1
 p1.lacI::p2.tetR
 Part: [Rec-RRY]
 pR.luxR.Y
 Small molecules
<ul style="list-style-type: none"> •IPTG: Isopropyl β-D-1-thiogalactopyranoside. •AHL: acyl homoserine lactone.
 Promoters
<ul style="list-style-type: none"> •p1: Constitutive LacIq promoter. •p2: Constitutive N25 promoter. •pR: <i>V. fischeri</i> LuxpR promoter.
 Proteins
<ul style="list-style-type: none"> •LacI: Lac repressor, negative regulator of pL. •TetR: Tet repressor, negative regulator of pT. •LuxR: <i>V. fischeri</i> LuxR protein, positive regulator of pR. •Y: Yellow fluorescent protein
 Description
In the presence of AHL, the LuxR protein activates its own expression at promoter pR (monitored using polycistronic YFP).
 Usage and compatibility
This device must be used in conjunction with an AHL sender device. It has been tested with [Sen-TIC].
Registry ID: BBa_I726071

 Characteristics
Reponse of the promoter pR can be characterized only in conjunction with a source of AHL (see data for [Sen-TIC+Rec-LRR]).
 <p>Measurements and analysis were carried out by members of the NCBS iGEM 2007 team: Kiran, Krishna, Mukund, Navneet, Nilesch, Senthil, Shashanka, Sugat, Sushant, Varun, Vini, Vivek</p>