

## Purexa<sup>™</sup> OdT for mRNA Purification



Purexa<sup>™</sup> OdT is a rapid mRNA purification tool that utilizes affinity membrane adsorber technologies. This chromatography product offers up to 10x productivity compared to traditional resins.

### How Purexa<sup>™</sup>OdT Works

Purexa™ OdT can successfully separate target mRNA species regardless of size. Productivity is enhanced with faster flow rates while providing high purity eluates.

Purexa™ OdT paired with our HIC and AEX columns allows for a seamless purification process to isolate mRNA.



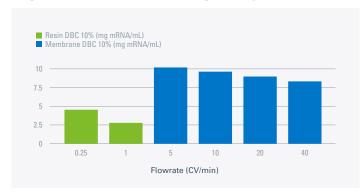
## Superior productivity: up to 10x with Purexa<sup>™</sup> OdT

- + Higher dynamic binding capacity
- + Faster cycle times
- + Consistent performance through linear scale up
- + And easier setup and breakdown

# Recommended buffers for mRNA purification with Purexa<sup>™</sup> OdT

- + Running Buffer: 50 mM Sodium Phosphate + 250 mM NaCl, pH 7.0
- + Wash Buffer: 50 mM Sodium Phosphate, pH 7.0
- + Elution Conditions: Deionized water or 20 mM Tris pH 7.0
- + Cleaning Solution: 0.1 M NaOH

### **Higher Performance at Higher Speeds**

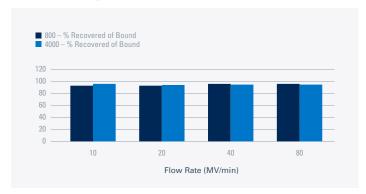


**Figure 1.** Running with a 800 nt mRNA sample, Purexa<sup>™</sup> OdT still has more than twice the dynamic bonding capacity (DBC) while operating at 20x the flowrate compared to resins.

## Increase Productivity with Purexa™ OdT

As shown in Figures 1-4, Purexa<sup>™</sup> OdT membrane chromatography provides high binding capacity and short residual time, regardless of the size of the molecule, resulting in up to 10 times faster processing than with resin chromatography.

#### **Consistency No Matter the Size**



**Figure 2.** The performance of Purexa<sup>™</sup> OdT is not affected by the size of the mRNA molecules. No decrease in recovery is observed with an increase in nucleotide base pairs or with speed (flowrate).

#### **Multiple Cycle Consistency**

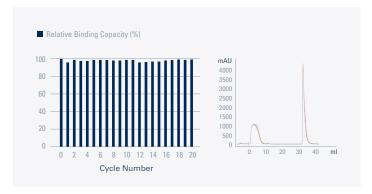
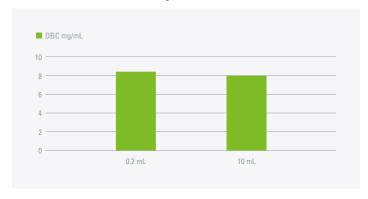


Figure 3. Purexa™ OdT can be reused over numerous cycles with no noticeable decrease in performance.

#### **Scalable Consistency**



**Figure 4.** Dynamic binding capacity remains consistent, no matter the form factor or volume of cassette, across scale-up Purexa™ OdT products, including 1, 10, and 50 mg mRNA (4k nt) capacity units, which are currently available and 250 mg capacity (and greater) coming soon.

#### **Various Form Factors & Volumes**

Purilogics, a Donaldson brand, offers a broad portfolio of Purexa<sup>™</sup> membrane series products in various form factors like columns, well plates and cassettes, with membrane volumes as small as 5.5 microliters up to several liters, as well as custom purification solutions.

Interested in sampling, purchasing or speaking with our expert staff?

Contact us!



900B W Faris Rd., Greenville, SC 29605 864-455-1457 | contact@purilogics.com | purilogics.com



Important Notice: Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the use's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.