

## ANTI-SENSE OLIGONUCLEOTIDE (ASO) ANTIBODY DEVELOPMENT

Rockland's antibody development capabilities include the proven ability to generate critical antibody reagents for the preclinical detection and characterization of specific ASOs under consideration as drug candidates. ASO antibodies exhibit sequence- or modification-specific binding properties and are intended for applications including ELISA and immunohistochemistry (IHC). With the development of ASO technologies and the first regulatory approval of an ASO as a therapeutic agent, the need for analytical reporting has increased.

Rockland has successfully worked with diverse nucleic acid chemical structures for antibody development. When working closely with clients to understand the biochemical properties of the target nucleic acids, Rockland can design a tailored antibody generation strategy. With years of experience and exposure to difficult protein and chemical immunogens, Rockland is a valuable partner by utilizing strengths unique to the industry.



**KNOWLEDGEABLE  
SCIENTIFIC STAFF**



**SUCCESS  
WITH DIFFICULT  
PROJECTS**



**EXTENSIVE  
EXPERIENCE**



**SPECIALIZED  
OLIGO CONJUGATION  
METHODS**

### COMPREHENSIVE SINGLE DOMAIN SERVICES

#### ANTIGEN PREPARATION

- Normal backbone/modified backbone
- Conjugation
- Immunogen qualification

#### ANTISERA DEVELOPMENT

- Polyclonal or monoclonal
- Immune response monitoring by antisera titration

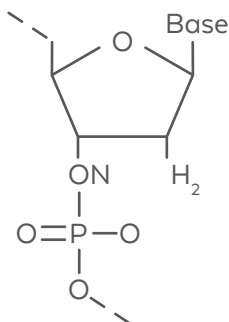
#### ANTIBODY CHARACTERIZATION

- Fit-for-purpose
- Affinity determination
- Assay development

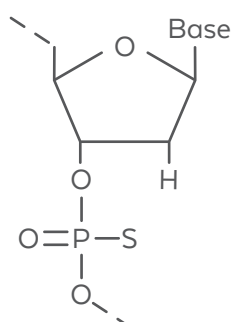
#### ANTIGEN PURIFICATION

- Specialized affinity purification methods
- Custom anti-ASO purification

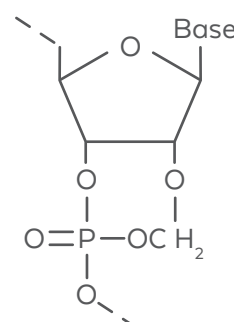
### MOST COMMON NUCLEIC ACID CHEMICALSTRUCTURES



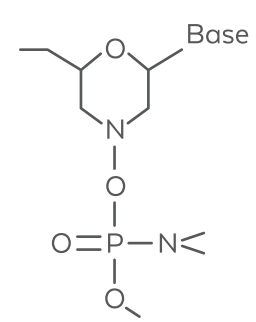
Phosphodiester  
Oligonucleotide



Phosphorothioate  
(PS)



2'-O-Methyl  
(2'-OME)



Morpholino Phosphoramidate  
(MF)

# PRODUCING AN OLIGONUCLEOTIDE ANTIBODY

Rockland generates oligonucleotide-specific antibodies as either polyclonal or monoclonal reagents. Our optimized ASO antibody process provides the desired sensitivity and specificity to most required specifications. The workflow presented below results in a well-validated antibody suitable for analytical assay development.

