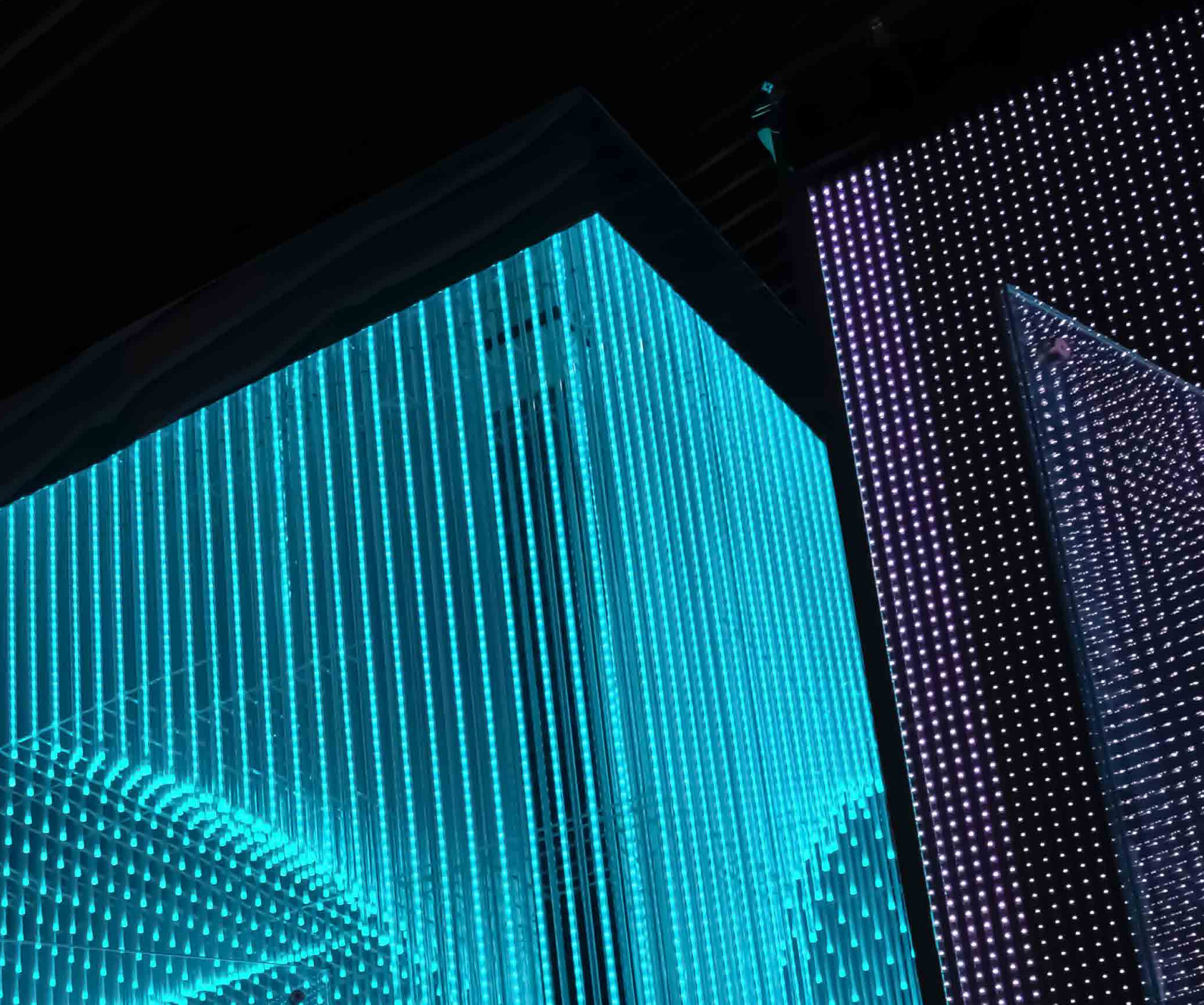


Compatibility of I.DOT consumables with antibodies of different sizes



Compatibility of I.DOT consumables with antibodies of different sizes

Antibodies are indispensable in a wide range of applications in diverse fields of molecular biology. The superior sensitivity and specificity of antibodies makes them valuable in biomedical research and in medical diagnostics. Antibodies are key components in Western Blotting, Enzyme-linked immunosorbent assays (ELISAs), Immunoprecipitation assays, immunohistochemistry, and immunocytochemistry. Furthermore, in flow cytometry, antibodies are widely used for intracellular analysis.

Material and Method

Antibodies with different sizes (16-160kDa) and clonality (monoclonal and polyclonal) were diluted (1:2000) in the antibody diluent (BIOZOL). Next, these antibodies were dispensed by the I.DOT with different consumables (S.60, S.100, and S.200) at different pressure points ranging from 70-250 mbar*ms.

After a thorough investigation of dispensing behaviours of a range of antibodies of different sizes (16-160 kDa) on different I.DOT consumables, we present an overview of the dispensing of antibodies and how to get your settings right for dispensing differently sized antibodies for your intended applications.

	70 mbar*ms	100 mbar*ms	150 mbar*ms	200 mbar*ms	250 mbar*ms
S.200 Wells					
Anti-CDKN2A (p16INK4a) mouse 16.4 kDa	💧	💧	💧	💧	💧
Mouse anti-GAPDH 35.9 kDa	💧	💧	💧	💧	💧
LGR5 mouse 99.8 kDa	💧	💧	💧	💧	💧
Citrate synthetase (CS) Rabbit Polyclonal Antibody 45 kDa	💧	💧	💧	💧	💧
Rabbit DAPK1 Antibody (C-term) 160 kDa	💧	💧	💧	💧	💧
S.100 Wells					
Anti-CDKN2A (p16INK4a) mouse 16.4 kDa	💧	💧	💧	—	—
Mouse anti-GAPDH 35.9 kDa	💧	💧	💧	—	—
LGR5 mouse 99.8 kDa	💧	💧	💧	—	—
Citrate synthetase (CS) Rabbit Polyclonal Antibody 45 kDa	💧	💧	💧	—	—
Rabbit DAPK1 Antibody (C-term) 160 kDa	💧	💧	💧	—	—
S.60 Wells					
Anti-CDKN2A (p16INK4a) mouse 16.4 kDa	—	—	—	—	—
Mouse anti-GAPDH 35.9 kDa	—	—	—	—	—
LGR5 mouse 99.8 kDa	—	—	—	—	—
Citrate synthetase (CS) Rabbit Polyclonal Antibody 45 kDa	—	—	—	—	—
Rabbit DAPK1 Antibody (C-term) 160 kDa	—	—	—	—	—



Result and Summary:

We recommend using the S.200 Wells as well as restricting the pressure for the liquid class to max. 250 mbar/ms. We do not recommend using lowest and the highest-pressure points of the I.DOT settings.

Recommendations for dispensing antibodies with the I.DOT

- Use the recommended consumables and pressure settings
- Do not let the antibody solutions in the source wells sit for more than five minutes before dispensing. It could cause clogging of the wells.





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