

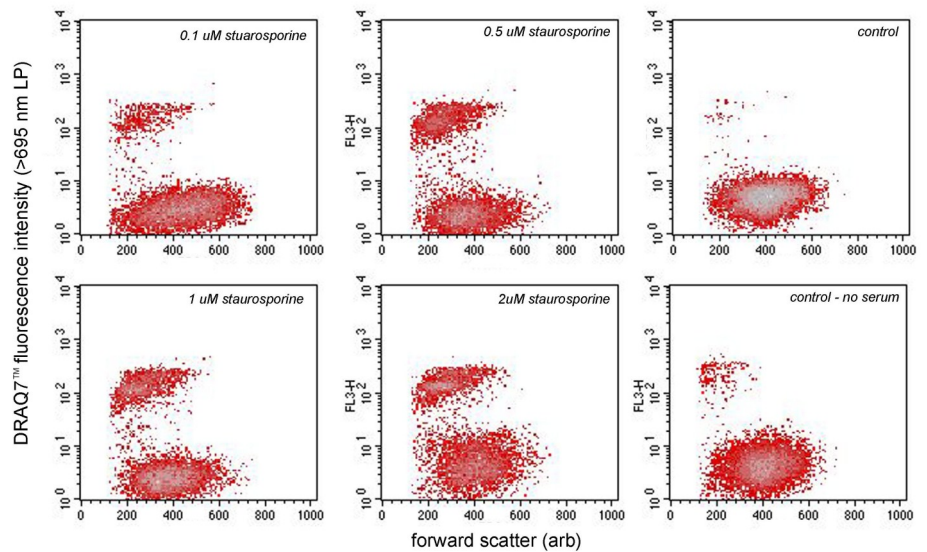
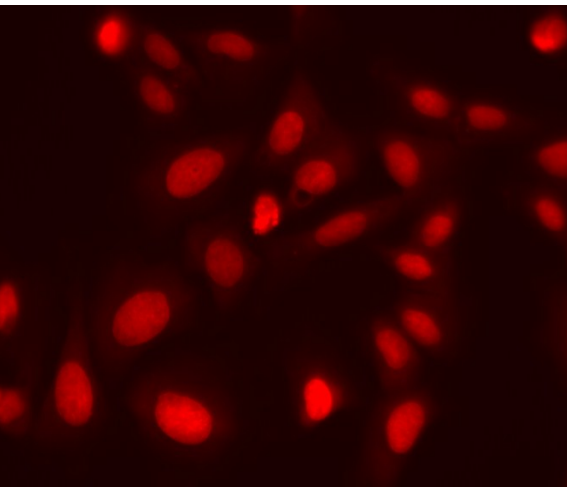
DRAQ7™

Far Red Fluorescent Live-Cell Impermeant DNA Dye

Flow
Cytometry

DRAQ7™

NEW cell health, apoptosis and cytotoxicity assays



DRAQ7™ is a novel far-red fluorescing DNA-specific dye that is IMPERMEANT and non-toxic to intact live cells.

DRAQ7™ rapidly enters and labels dead, dying and apoptotic cells in cytotoxicity and viability assays and fixed and permeabilized cell preparations.

DRAQ7™ far-red emission permits new combinations of dyes to be used in the understanding of apoptosis. Its spectral properties make it interchangeable with DRAQ5™ to permit convenient two tube analysis for sample quality and DNA content analysis.

- ⇒ **Live cell IMPERMEANT & non-toxic**
- ⇒ **Labels dead, dying and apoptotic cells**
- ⇒ **Far-red emission compatible with all visible fluors**
- ⇒ **Highly photostable, pure synthetic compound**
- ⇒ **Ready-to-use, buffer compatible aqueous solution**

DRAQ7™

**widening the spectrum for cell health,
apoptosis and cytotoxicity assays**

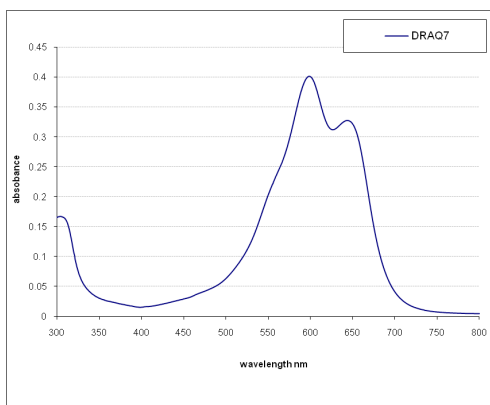


Figure 1: Spectral characteristics of DRAQ7™
Excitation (absorbance)

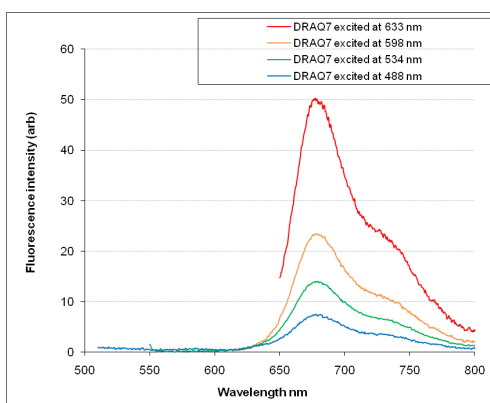


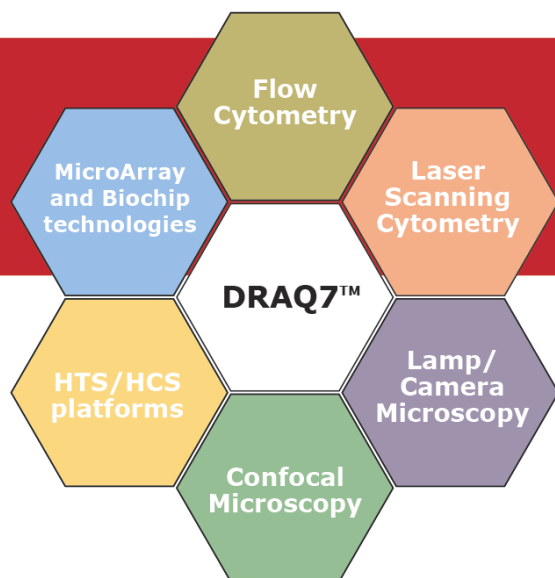
Figure 2: Spectral characteristics of DRAQ7™ Emission at different common excitation wavelengths. (The $E_{m\lambda_{max}}$ is further shifted 16nm higher on binding to target dsDNA).

Key Features:

- ⇒ Intact, live cell IMPERMEANT
- ⇒ Very low long-term toxicity
- ⇒ Rapid uptake into leaky/dead cells
- ⇒ DNA-specific labeling
- ⇒ Far-red emission (from 665 nm)
- ⇒ No emission overlap with popular visible range fluors
- ⇒ Excitation possible by blue, green, yellow and red lasers

Advantages:

- ⇒ Labels dead / dying cells (for cytotoxicity / sample quality)
- ⇒ Labels membrane-compromised apoptotic cells
- ⇒ Ideal for combination with JC-1 (no orange overlap)
- ⇒ Leaves long-term viability assays unperturbed
- ⇒ Interchangeable with DRAQ5 (DNA vs cell health)
- ⇒ Allows 5-colour analysis off single blue laser excitation



Compatible with your existing instrumentation

DRAQ7™ is highly compatible with a wide range of instrumentation platforms, allowing for simple integration into current protocols and procedures.

DRAQ7™ is manufactured by BioStatus Limited and distributed by ImmunoChemistry Technologies, LLC. For further information please contact:-

ImmunoChemistry Technologies, LLC
9401 James Avenue South, Suite #155
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biostatus

ImmunoChemistry
TECHNOLOGIES LLC

DRAQ7™: MATERIAL SAFETY DATA SHEET. For further information see our website at www.biostatus.com

Ref: SO/110410/BS1 **1. NUMBER(S)** DRAQ7™ (DR71000) **2. COMPANY/UNDERTAKING NAME & ADDRESS** Biostatus Limited, 56a Charnwood Road, Shepshed, Leicestershire, LE12 9NP, United Kingdom t: +44 1509 558163 f: +44 1509 651061 e: enquiry@biostatus.com w: <http://www.biostatus.com> **3. COMPOSITION Substance:** DRAQ7™ % content: >97 % **4. HAZARDS IDENTIFICATION** Most important hazard: **CYTOTOXIC AGENT** **5. FIRST AID MEASURES** Skin contact: WASH WITH SOAP & WATER; THEN FLUSH WITH WATER UNTIL CHEMICAL IS REMOVED. Eye contact: EYE-FLUSH PROMPTLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. Ingestion: IF CONSCIOUS, INDUCE VOMITING AS DIRECTED BY DOCTOR, IMMEDIATELY GET MEDICAL HELP. Inhalation: REMOVE TO FRESH AIR. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. **6. ACCIDENTAL RELEASE MEASURES NEUTRALIZING AGENT:** WATER PLUS DISH SOAP. **Methods for cleaning:** WEAR PROTECTIVE EQUIPMENT. WIPE OR MOP UP AND PLACE IN A CONTAINER FOR DISPOSAL. FLUSH RESIDUE AWAY WITH WATER. NON POROUS SURFACE CONTAMINATION MAY BE REMOVED USING 70% METHANOL IN WATER. **7. HANDLING AND STORAGE** Handling: LABORATORY COAT, RUBBER GLOVES AND SAFETY GOGGLES **Storage:** STORE AT 4°C. DO NOT FREEZE. PROTECT CONTAINER FROM PHYSICAL DAMAGE. **8. EXPOSURE CONTROLS** Personal protection equipment: laboratory coat Eye protection: safety goggles, Hand protection: rubber gloves **9. PHYSICAL AND CHEMICAL PROPERTIES** Appearance: DARK BLUE SOLUTION, ODOURLESS. **10. STABILITY AND REACTIVITY** reactivity STABLE SOLUTION. Incompatible with strong oxidizing agents & strong bases. **11. TOXICOLOGICAL INFORMATION** This material is CYTOTOXIC and may be CARCINOGENIC. INHALATION-MILDLY IRRITATING. INGESTION-MAY CAUSE CARDIOVASCULAR AND BIRTH DEFECTS. **12. DISPOSAL AND ENVIRONMENTAL CONSIDERATIONS** Disposal should follow federal and local Regulatory Guidelines for cytotoxic agents **13. SOURCES OF KEY DATA** 1. The Physical and Theoretical Chemistry Laboratory Oxford University: <http://physchem.ox.ac.uk/MSDS> 2. American Cyanamid Lederle Laboratories Div-Material Safety Data Sheet: <http://siri.org/msds/h/q205/q343.html> 3. BIOSTATUS LTD: <http://www.biostatus.com> **14. LABEL DATA** Label Required: YES (Toxic material) Common Name: DRAQ7™ Signal Word: WARNING! Acute Health Hazard: Moderate Contact Hazard: Slight Fire Hazard: Slight Reactivity Hazard: None Special Hazard Precautions: INHALATION-MILDLY IRRITATING. INGESTION-MAY CAUSE CARDIOVASCULAR AND BIRTH DEFECTS. CYTOTOXIC. SUSPECTED MUTAGEN. Storage: STORE AT 4°C. DO NOT FREEZE. PROTECT FROM PHYSICAL DAMAGE.