

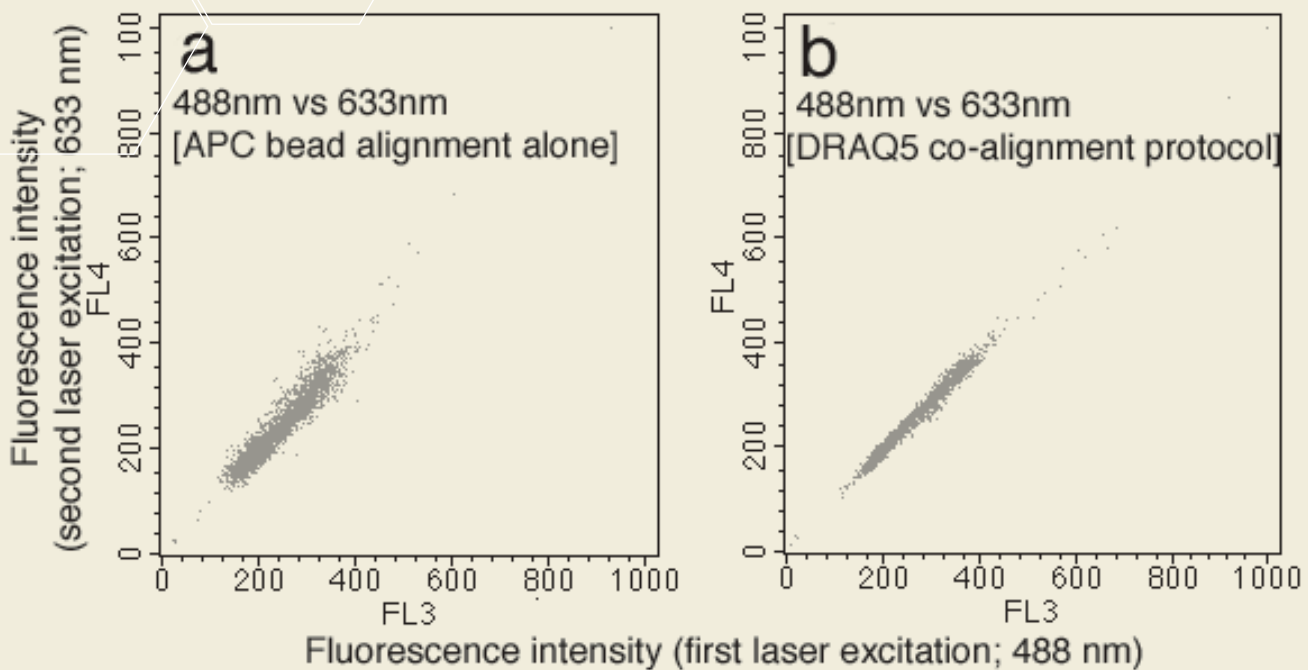
DRAQ5™

Red Fluorescent Cell-Permeable DNA Probe

Flow
Cytometry

DRAQ5™

Align your lasers with DRAQ5™ stained cells!



DRAQ5™ has such a high affinity for DNA, that it is possible to excite this novel fluor using a wide range of convenient laser light wave lengths e.g. 488, 514, 568, 633 or 647nm. DRAQ5™ stained cells can therefore be co-excited using 488nm and 633nm emitting lasers for easy laser alignment routines.

The images above show analysis of DRAQ5™ stained LIVE B cell lymphoma cells using 488nm and 633 nm wavelength excitation. **Fig A** shows optimal co-alignment of lasers using APC labelled beads for red excitation, while **Fig B** shows co-alignment using the DRAQ5™ blue versus red fluorescence signals from DRAQ5™-stained cells alone.

- > **Quick and easy to use – only minutes of incubation are required for saturable DNA staining (1)**
- > **No fixation or permeabilisation necessary (1)**
- > **Usable across a wide range of confocal systems (1)**

REFERENCES 1. Characteristics of a novel deep red/infrared fluorescent cell-permeant DNA probe, DRAQ5, in intact human cells analyzed by flow cytometry, confocal and multiphoton microscopy: P.J. Smith, et al.; Cytometry, 40, 280 (2000)

KEY FEATURES

- DRAQ5™ is a pure synthetic compound, stable at room temperature, stable under normal lighting conditions and soluble in water at biologically compatible pH
- Rapid uptake into virtually any cell type, LIVE or fixed
- High affinity for and stoichiometric binding to DNA inside living and fixed cells
- Excitation possible across a wide range of wavelengths: e.g. 488, 514, 568, 633 or 647nm (Fig 1)
- Emission spectrum extending from 670nm, into the low infra-red (Fig 2)

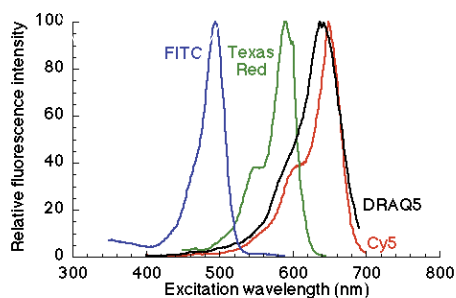


Fig: 1
Spectral characteristics of DRAQ5™ **Excitation**

ADVANTAGES

- DRAQ5™ can be used as a membrane permeant fluorescent dye for the rapid and convenient staining of nuclear DNA, in living or fixed cells, with minimal RNA-associated fluorescence
- Stoichiometric binding to DNA inside living and fixed cells, permits cellular DNA content analysis
- Despite sub-optimal excitation at 488nm (Fig 1), the high affinity DNA binding characteristics of DRAQ5™ permit DNA content reporting by 488nm laser systems
- Highly compatible with a wide variety of visible range dyes, including GFP
- No requirement for compensation when using DRAQ5™/FITC combinations (Fig 1,2)
- Does not photobleach

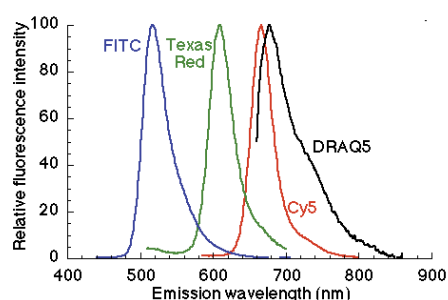
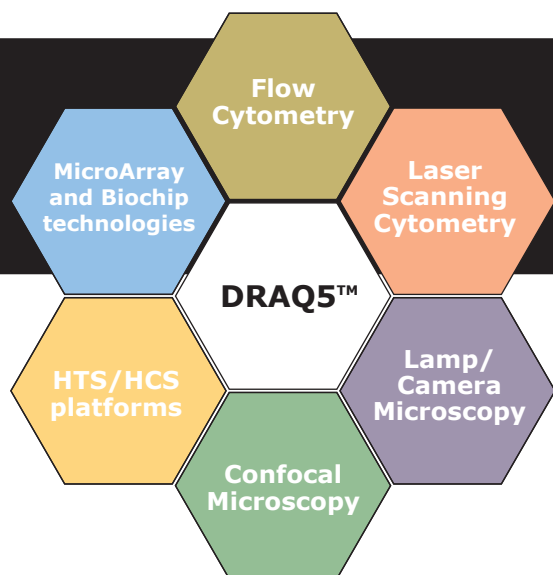


Fig: 2
Spectral characteristics of DRAQ5™ **Emission**



Compatible with your existing instrumentation

DRAQ5™ is highly compatible with a wide range of instrumentation platforms, allowing for simple integration into current protocols and procedures.

For a full price list and further information about DRAQ5™ and its many applications, see www.biostatus.co.uk or contact us at:

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DRAQ5™: MATERIAL SAFETY DATA SHEET. For further information see our website at www.biostatus.co.uk

Ref: SO/150401/BS1 **1. NUMBER(S)** DRAQ5™ (BATCH BS1) **2. COMPANY/UNDERTAKING NAME & ADDRESS** Biostatus Limited, 56 Charnwood Road, Shepshed, Leicestershire, LE12 9NP, United Kingdom **t:** +44(0)1509 558163 **f:** +44(0)1509 651061 **e:** enquiry@biostatus.co.uk **w:** <http://www.biostatus.com> **3. COMPOSITION Substance:** DRAQ5™ % content: >99 % **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: DRAQ5™ 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.