

Imaging protein gels using GeneSnap software

Introduction

Protein gels are routinely run in many life science laboratories and with an increasing number of gel stains available for staining proteins after electrophoresis it can be confusing as to which lighting and filter selection are required when imaging your protein gel.

Coomassie blue gel stain, SYPRO Ruby and Red and silver stain are some of the commonly used gel stains available today. Coomassie blue stain has been used for many years for staining proteins on polyacrylamide gels and the sensitivity of coomassie blue has been improved by the introduction of brilliant blue dyes in colloidal form.

SYPRO Ruby and Red protein gel stains is a very sensitive stain, for proteins separated by polyacrylamide gel electrophoresis (PAGE). SYPRO Ruby stain was originally developed for 2-D PAGE but it has also proven to be an excellent 1-D PAGE gel stain. SYPRO Red protein stain is efficiently excited by UV or broad band illumination.

There are a range of Silver stains currently available that are produced from two different methods. The two general classifications are silver amine or alkaline method and the silver nitrate or acidic method. The silver amine methods usually have lower background than the silver nitrate methods and therefore this method is considered to be more sensitive.

Imaging Protein gels using GeneSnap image capture software

Protein Gels can be visualised on all Syngene Image capture systems.

Coomassie blue and Silver stain

SYSTEM	LIGHTING	FILTER
Dyversity, G:Box iChemi ranges and InGenius	NovaGlo visible converter transilluminator	FiltUV small aperture

SYPRO Red and SYPRO Ruby

SYSTEM	LIGHTING	FILTER
Dyversity, G:Box iChemi ranges and InGenius	Transilluminator medium wave UV	Filt UV or LP Small aperture

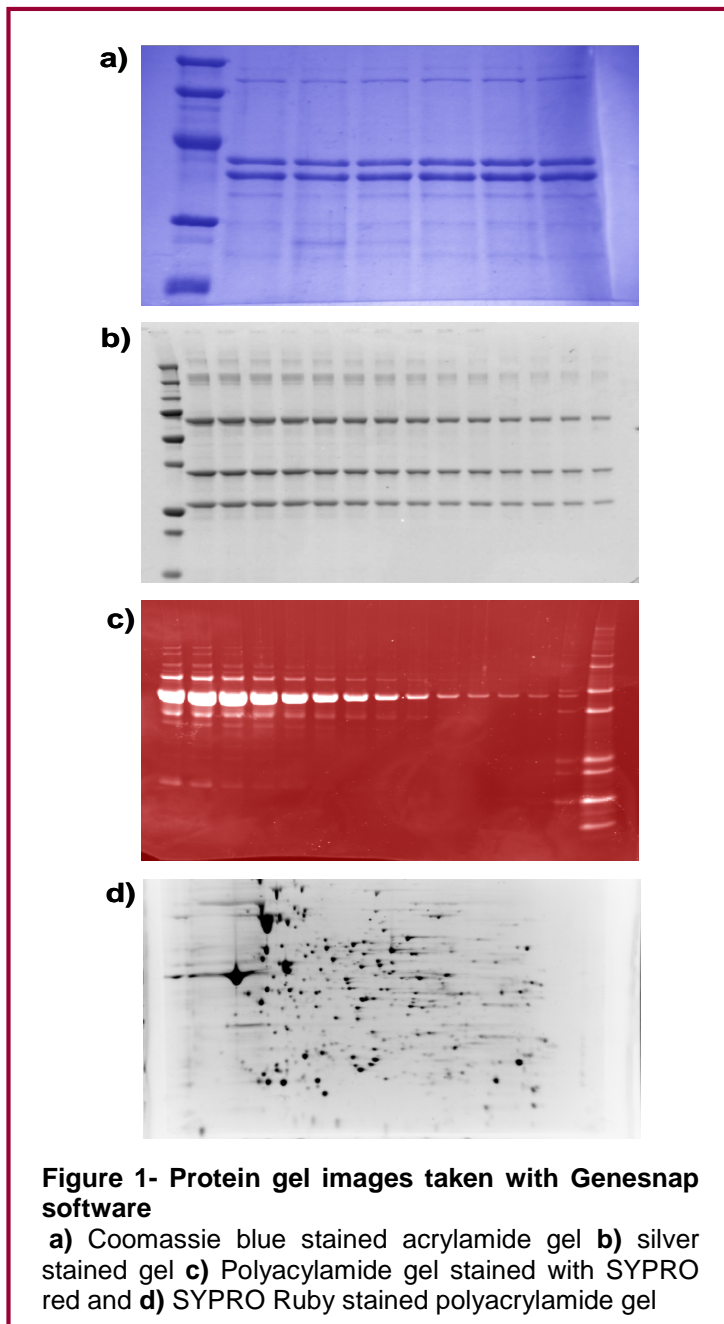


Figure 1- Protein gel images taken with Genesnap software

a) Coomassie blue stained acrylamide gel b) silver stained gel c) Polyacrylamide gel stained with SYPRO red and d) SYPRO Ruby stained polyacrylamide gel

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