

## Příloha 2- Používané čisticí kapaliny

Table 1. Comparison of Clearing Techniques

Solvent Based	Final RI	Key Components	Time to Clear	Immunostaining Demonstrated	Alterations in Tissue Morphology	FP Emission	Detergent Used	Lipid Preserved	Electrophoresis	Hydrogel Embedding	Clearing Solution Perfused	Toxic	Reference
Spatleholz	1.55	benzylbenzoate/methylsalicylate	months	no	shrinkage	no	no	no	no	no	no	yes	Spalteholz 1914
BABB	1.55	benzylalcohol/benzylbenzoate	days	yes	shrinkage	yes, but only half day	no	no	no	no	no	yes	Dotd et al., 2007
3DISCO	1.56	dichloromethane/dibenzylether	hours-days	limited	shrinkage	yes, but only 1-2 days	no	no	no	no	no	no	Ertürk et al., (DBE) 2012a, 2012b
iDISCO	1.56	dichloromethane/dibenzylether	hours-days	yes	shrinkage	yes, but only 2-4 days	no	no	no	no	no	no	Renier et al., (DBE) 2014
Simple Immersion	Final Refractive Index	Key Components	Time to Clear	Immunostaining Demonstrated	Alterations in Tissue Morphology	FP Emission	Detergent Used	Lipid Preserved	Electrophoresis	Hydrogel Embedding	Clearing Solution Perfused	Toxic	Reference
Sucrose	1.44	sucrose	1 day	yes	Shrinkage	yes	Triton (2%)	no	no	no	no	no	Tsai et al., 2009b
FocusClear	1.47	diatrizoic acid	hours-days	yes	no	yes	Tween 20	yes	no	no	no	no	Chiang et al., 2002
ClearT <sup>a</sup>	1.44	formamide	hours-days	yes	no	no	no	yes	no	no	no	no	Kuwajima et al., 2013
ClearT2 <sup>a</sup>	1.44	formamide/PEG	hours-days	yes	no	yes	no	yes	no	no	no	no	Kuwajima et al., 2013
SeeDB	1.48	fructose/thioglycerol	days	no	no	yes	no	yes	no	no	no	no	Ke et al., 2013
FRUIT <sup>a</sup>	1.48	fructose/thioglycerol/urea	days	no	minimal expansion	yes	no	yes	no	no	yes	no	Hou et al., 2015
TDE <sup>b</sup>	1.42	2,2'-thiodiethanol	days-weeks	yes	no	yes	8% SDS (optional)	no	optional	optional	no	no	Costantini et al., 2015; Aoyagi et al., 2015; Staudt et al., 2007
Hyperhydration	Final Refractive Index	Key Components	Time to Clear	Immunostaining Demonstrated	Alterations in Tissue Morphology	FP Emission	Detergent Used	Lipid Preserved	Electrophoresis	Hydrogel Embedding	Clearing Solution Perfused	Toxic	Reference
Scale A2	1.38	4M urea, 10% glycerol	weeks	no	expansion	yes	Triton X-100 (0.1%)	no	no	no	no	no	Hama et al., 2011
Scale U2	1.38	4M urea, 30% glycerol	months	no	no	yes	Triton X-100 (0.1%)	no	no	no	no	no	Hama et al., 2011

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Table 1. Continued

CUBIC	CUBIC1, 1.38; CUBIC2, 1.48	4M urea/50% sucrose	days	yes	expansion	yes	Triton X-100 (50%)	no	no	no	no	no	Susaki et al., 2014
Whole-Body CUBIC	1.38	4M urea	days	yes	expansion	yes	Triton X-100 (10%)	no	no	no	yes	no	Tainaka et al., 2014
Hydrogel Embedding	Final Refractive Index	Key Components	Time to Clear	Immunostaining Demonstrated	Alterations in Tissue Morphology	FP Emission	Detergent Used	Lipid Preserved	Electrophoresis	Hydrogel Embedding	Clearing Solution Perfused	Toxic	Reference
CLARTY	1.45	FocusClear/80% glycerol	days	yes	slight expansion	yes	SDS (8%)	no	yes	yes	no	no	Chung et al., 2013
PACT	1.38-1.48	Histodenz	days-weeks	yes	slight expansion	yes	SDS (8%)	no	no	yes	no	no	Yang et al., 2014
PARS	1.38-1.48	Histodenz	days	yes	no	yes	SDS (8%)	no	yes	yes	yes	no	Yang et al., 2014

RI, refractive index; FP, fluorescent protein.

<sup>a</sup>Denotes techniques that also have a Hyperhydration component.

<sup>b</sup>Can be combined with CLARTY/PACT/PARS