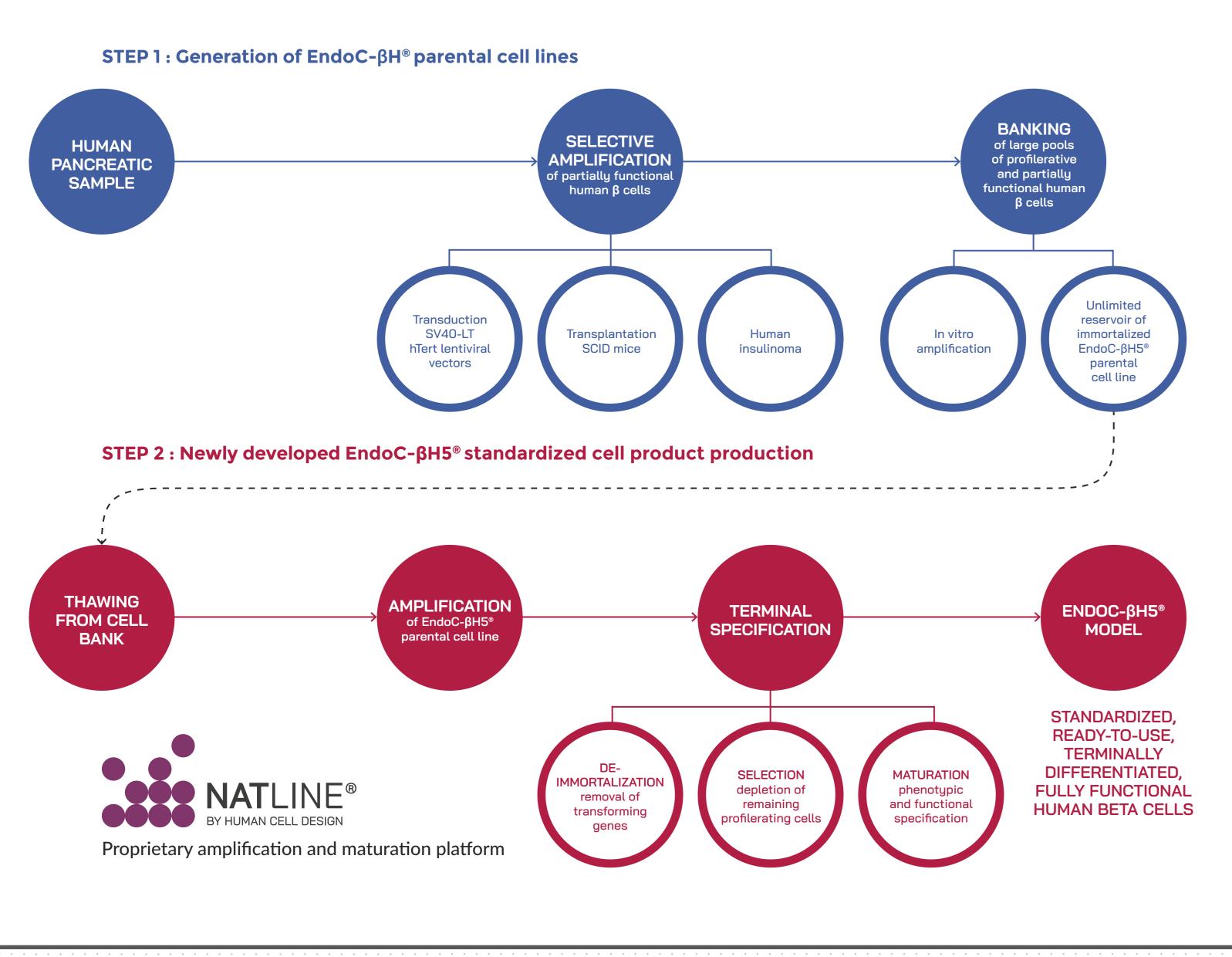
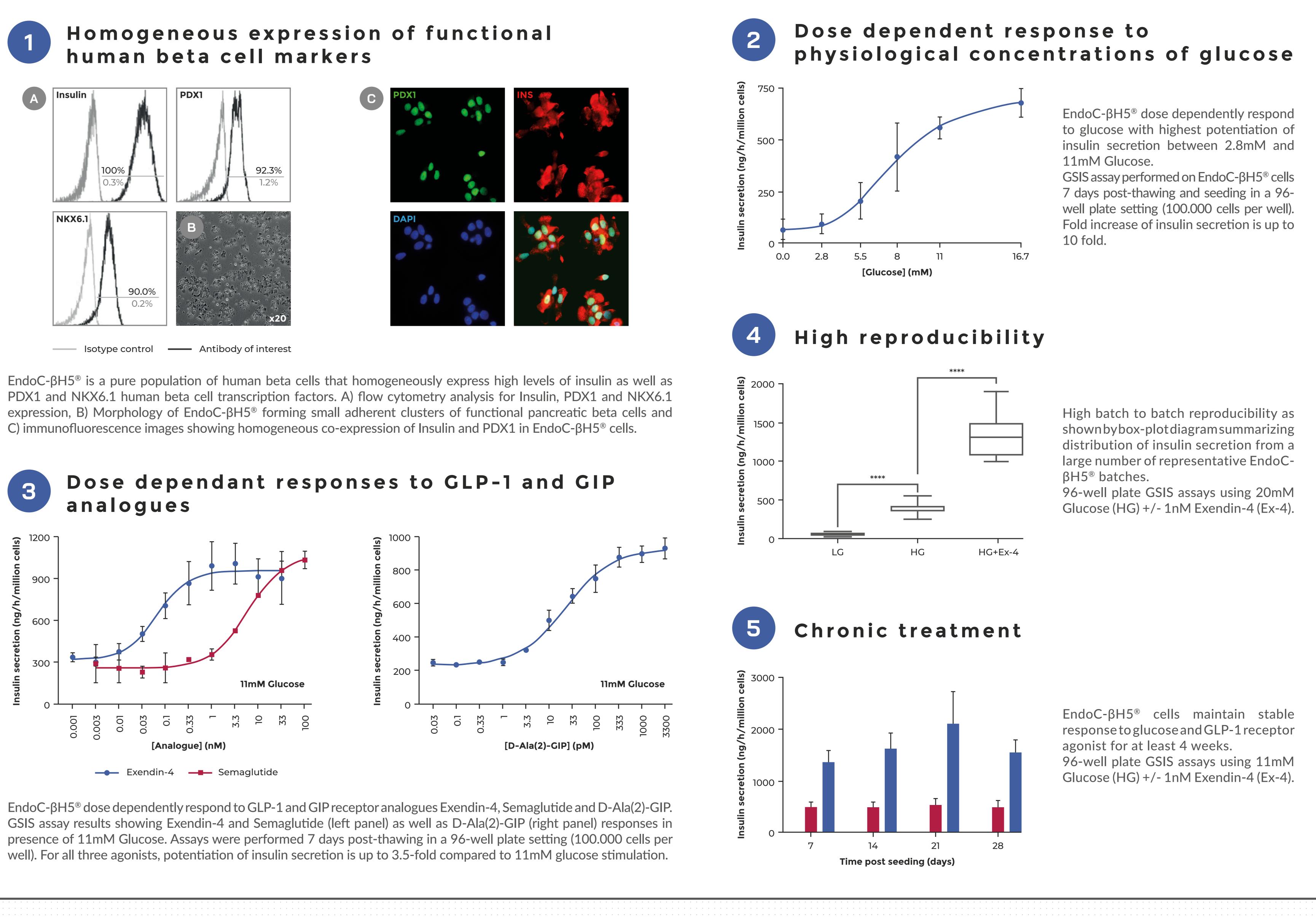


Overall, EndoC-βH5<sup>®</sup> represent a novel human pancreatic beta cell solution with very high potential for developing human diabetes models, unraveling diabetes mechanisms in human cells and developing drug screening and hit validation platforms for anti-diabetic drugs.

Process of generation of highly functional, reproducible and ready-touse EndoC-BH5<sup>®</sup> human beta cells through maturation of proliferation induced human beta cells initially derived from primary tissue



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(1) A genetically engineered human pancreatic β cell line exhibiting glucose-inducible insulin secretion. Ravassard P. J. Clin Invest. 2011 Sep; 121(9):3589-97. (2) The EndoC-BH1 cell line is a valid model of human beta cells and applicable for screenings to identify novel drug target candidates. Tsonkova VG et al. Mol Metab. 2018 Feb; 8:144-15 (3) Large-Scale Functional Genomics Screen to Identify Modulators of Human β-Cell Insulin Secretion. Szczerbinska I et al. Biomedicines. 2022 Jan 4; 10(1):103



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# **CONCLUSION**

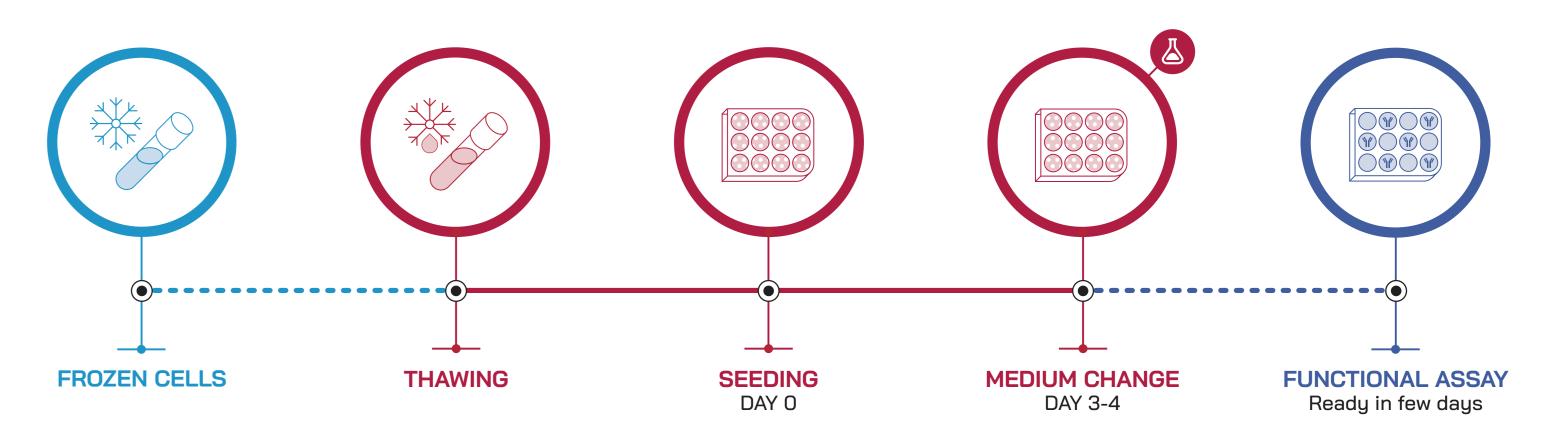
EndoC-βH5<sup>®</sup> is a unique "thaw and go" human beta cell model that can accelerate Diabetes research, thanks to:

- Functionally validated batches of frozen cells
- **Robustness** batch to batch high reproducibility
- Flexibility plan your experiments then thaw cells as needed
- Availability large batches available
- HTS compatible proven 96 and 384-well plate compatibility <sup>(3)</sup>
- **Chronic treatment** at least 4 weeks

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Time saving "thaw and go" - results in few days

Diagram showing possible experiment time frame when using EndoC-βH5<sup>®</sup> cells



## EndoC-βH5® is an optimized human beta cell model

		ENDOC-βH1	ENDOC-βH5	NATIVE $\beta$ CELLS
Functionality	Glucose response	+	+++	+++
	GLP-1/GIP response	Νο	Yes	Yes
	Insulin content (µg/M¢)	0.5 – 1	Up to 10	Up to 10
Phenotype	Proliferation	Yes	Νο	Νο
	Functional maturity	Νο	Yes	Yes
	Amplification	> 100 passage	Single use	Single use
	Purity	100% β cells	100% β cells	α / β / δ cells
Logistics	Time before running functional assay	8 weeks	7 days	Islet preparation
	Chronic Treatment	Yes	> 4 weeks	Few days
	Handling	Culture and Preparation	Thaw-and-go / Ready to use	Preparation
	Reproducibility and Robustness	+	+++	+
	Flexibility	+	+++	-
	Availability	Unlimited	Unlimited	Limited
Screening	96/384 well miniaturization	Yes	Yes	Yes
	HTS	Conditional	Yes	Difficult due to availability